



## Full wwPDB EM Validation Report ⓘ

Dec 15, 2022 – 05:44 pm GMT

PDB ID : 6XU8  
EMDB ID : EMD-10624  
Title : Drosophila melanogaster Ovary 80S 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 : 3.00 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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

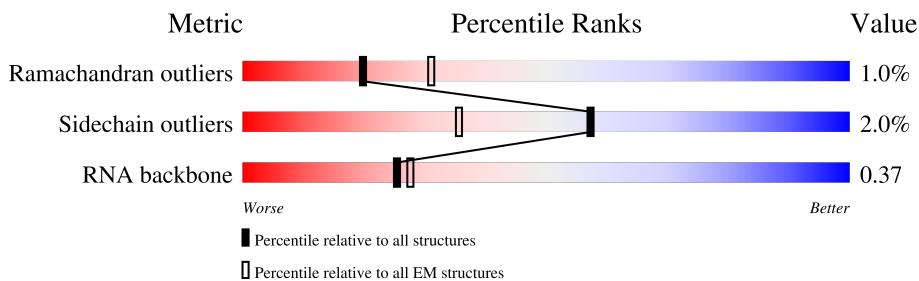
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.00 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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	CO	205	
2	CL	210	
3	CV	134	
4	CM	159	
5	Ca	149	
6	CN	203	
7	CI	217	
8	CD	290	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
9	CQ	187	94% 5% ..
10	CR	203	12% 97% .
11	CA	253	96% .
12	CS	173	85% 14% .
13	CT	158	92% 7% .
14	CP	185	13% 94% 5% .
15	CX	120	95% 5%
16	CY	131	94% 5% .
17	CZ	134	99% .
18	Cr	134	7% 82% 17% .
19	Ch	123	94% 6%
20	Cb	75	88% 11% .
21	CB	414	91% 8%
22	CF	226	95% ..
23	Cc	100	99% .
24	Ce	132	95% ..
25	Cf	157	84% 15% .
26	Ci	113	90% 10%
27	Ck	70	94% ..
28	Cl	50	98% .
29	CC	392	91% 8% .
30	Cm	52	92% 6% .
31	Cn	25	96% .
32	Cp	91	95% 5%
33	Co	104	93% 7%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
34	CJ	182	5% 96%
35	CH	190	94% 6%
36	CE	228	9% 84% 14%
37	CG	241	10% 95% 5%
38	A9	30	53% 37% 10%
39	A7	120	51% 42% 8%
40	A8	123	31% 56% 13%
41	Ag	318	68% 97%
42	AU	102	43% 99%
43	AO	127	96%
44	AX	143	6% 97%
45	AM	119	63% 92% 7%
46	Ad	52	10% 98%
47	AN	150	99%
48	AL	155	17% 99%
49	AR	120	55% 98%
50	AP	124	22% 94% 6%
51	AB	220	10% 95%
52	AA	218	17% 97%
53	AV	82	23% 96%
54	AY	126	11% 94% 6%
55	AZ	74	54% 89% 11%
56	Aa	107	13% 94% 6%
57	Ab	84	7% 99%
58	AD	227	37% 95% 5%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
59	Ae	58	33% 95% 5%
60	Af	80	52% 85% 15%
61	AJ	181	8% 97%
62	AE	261	5% 97%
63	AC	227	11% 97%
64	AG	231	18% 97%
65	AH	194	21% 95% 5%
66	AI	207	17% 96%
67	AQ	148	42% 92% 8%
68	Cz	217	99% 95% 5%
69	A5	3703	6% 37% 46% 17%
70	B2	1936	11% 63% 34%
71	AW	129	99%
72	AT	126	18% 94% 6%
73	AK	90	7% 97%
74	AF	189	53% 95% 5%
75	Ac	62	24% 92% 8%
76	CU	99	6% 96%
77	Cj	87	99%
78	CW	60	97%
79	Cg	103	91% 8%
80	Cd	107	93% 7%
81	AS	136	18% 97%

## 2 Entry composition [i](#)

There are 81 unique types of molecules in this entry. The entry contains 216955 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 60S ribosomal protein L13a.

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

- Molecule 2 is a protein called 60S ribosomal protein L13.

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

- Molecule 3 is a protein called 60S ribosomal protein L23.

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

- Molecule 4 is a protein called 60S ribosomal protein L14.

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

- Molecule 5 is a protein called 60S ribosomal protein L27a.

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

- Molecule 6 is a protein called 60S ribosomal protein L15.

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

- Molecule 7 is a protein called 60S ribosomal protein L10.

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

- Molecule 8 is a protein called 60S ribosomal protein L5.

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

- Molecule 9 is a protein called 60S ribosomal protein L18.

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

- Molecule 10 is a protein called 60S ribosomal protein L19.

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

- Molecule 11 is a protein called 60S ribosomal protein L8.

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

- Molecule 12 is a protein called 60S ribosomal protein L18a.

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

- Molecule 13 is a protein called RE62581p.

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

- Molecule 14 is a protein called 60S ribosomal protein L17.

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

- Molecule 15 is a protein called IP17216p.

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

- Molecule 16 is a protein called GEO07453p1.

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

- Molecule 17 is a protein called 60S ribosomal protein L27.

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

- Molecule 18 is a protein called 60S ribosomal protein L28.

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

- Molecule 19 is a protein called FI02809p.

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

- Molecule 20 is a protein called 60S ribosomal protein L29.

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

- Molecule 21 is a protein called 60S ribosomal protein L3.



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

- Molecule 22 is a protein called 60S ribosomal protein L7.

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

- Molecule 23 is a protein called RE25263p.

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

- Molecule 24 is a protein called 60S ribosomal protein L32.

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

- Molecule 25 is a protein called GEO07455p1.

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

- Molecule 26 is a protein called 60S ribosomal protein L36.

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

- Molecule 27 is a protein called 60S ribosomal protein L38.

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

- Molecule 28 is a protein called 60S ribosomal protein L39.

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

- Molecule 29 is a protein called 60S ribosomal protein L4.

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

- Molecule 30 is a protein called Ubiquitin-60S ribosomal protein L40.

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

- Molecule 31 is a protein called 60S ribosomal protein L41.

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

- Molecule 32 is a protein called 60S ribosomal protein L37a.

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

- Molecule 33 is a protein called TA01007p.

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

- Molecule 34 is a protein called 60S ribosomal protein L11.

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

- Molecule 35 is a protein called 60S ribosomal protein L9.

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

- Molecule 36 is a protein called Ribosomal protein L6, isoform A.

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

- Molecule 37 is a protein called 60S ribosomal protein L7a.

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

- Molecule 38 is a RNA chain called 2S ribosomal RNA.

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

- Molecule 39 is a RNA chain called 5S ribosomal RNA.

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

- Molecule 40 is a RNA chain called 5.8S ribosomal RNA.

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

- Molecule 41 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

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

- Molecule 42 is a protein called 40S ribosomal protein S20.

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

- Molecule 43 is a protein called 40S ribosomal protein S14a.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	AO	127	Total	C	N	O	S	0	0
			953	587	185	177	4		

- Molecule 44 is a protein called 40S ribosomal protein S23.

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

- Molecule 45 is a protein called 40S ribosomal protein S12.

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

- Molecule 46 is a protein called 40S ribosomal protein S29.

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

- Molecule 47 is a protein called 40S ribosomal protein S13.

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

- Molecule 48 is a protein called 40S ribosomal protein S11.

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

- Molecule 49 is a protein called 40S ribosomal protein S17.

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

- Molecule 50 is a protein called GEO07301p1.

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

- Molecule 51 is a protein called 40S ribosomal protein S3a.

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

- Molecule 52 is a protein called 40S ribosomal protein SA.

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

- Molecule 53 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
53	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

*Continued on next page...*

*Continued from previous page...*

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

- Molecule 54 is a protein called 40S ribosomal protein S24.

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

- Molecule 55 is a protein called 40S ribosomal protein S25.

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

- Molecule 56 is a protein called 40S ribosomal protein S26.

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

- Molecule 57 is a protein called 40S ribosomal protein S27.

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

- Molecule 58 is a protein called 40S ribosomal protein S3.

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

- Molecule 59 is a protein called 40S ribosomal protein S30.

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

- Molecule 60 is a protein called Ubiquitin-40S ribosomal protein S27a.

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

- Molecule 61 is a protein called 40S ribosomal protein S9.

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

- Molecule 62 is a protein called 40S ribosomal protein S4.

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

- Molecule 63 is a protein called 40S ribosomal protein S2.

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

- Molecule 64 is a protein called 40S ribosomal protein S6.

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

- Molecule 65 is a protein called 40S ribosomal protein S7.

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

- Molecule 66 is a protein called 40S ribosomal protein S8.

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

- Molecule 67 is a protein called 40S ribosomal protein S16.

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

- Molecule 68 is a protein called 60S ribosomal protein L10a-2.

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

- Molecule 69 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
69	A5	3703	77093	34436	13555	25401	3701	0	0

- Molecule 70 is a RNA chain called 18S ribosomal RNA.

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

- Molecule 71 is a protein called 40S ribosomal protein S15Aa.

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

- Molecule 72 is a protein called 40S ribosomal protein S19a.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
72	AT	126	1000	635	192	170	3	0	0

There are 13 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AT	?	-	GLU	deletion	UNP P39018
AT	?	-	HIS	deletion	UNP P39018
AT	?	-	ALA	deletion	UNP P39018
AT	?	-	ARG	deletion	UNP P39018
AT	?	-	LEU	deletion	UNP P39018
AT	?	-	VAL	deletion	UNP P39018

*Continued on next page...*



*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
AT	?	-	GLU	deletion	UNP P39018
AT	?	-	LYS	deletion	UNP P39018
AT	?	-	HIS	deletion	UNP P39018
AT	?	-	PRO	deletion	UNP P39018
AT	?	-	ASP	deletion	UNP P39018
AT	?	-	GLY	deletion	UNP P39018
AT	?	-	GLY	deletion	UNP P39018

- Molecule 73 is a protein called 40S ribosomal protein S10b.

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

- Molecule 74 is a protein called 40S ribosomal protein S5b.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
74	AF	189	1481	925	283	266	7	0	0

- Molecule 75 is a protein called 40S ribosomal protein S28.

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

- Molecule 76 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
76	CU	99	825	530	144	149	2	0	0

- Molecule 77 is a protein called Probable 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
77	Cj	87	704	430	154	115	5	0	0

- Molecule 78 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
78	CW	60	503	326	95	78	4	0	0

- Molecule 79 is a protein called 60S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
79	Cg	103	844	525	176	138	5	0	0

- Molecule 80 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
80	Cd	107	893	556	176	159	2	0	0

- Molecule 81 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
81	AS	136	1117	701	216	197	3	0	0

### 3 Residue-property plots [i](#)


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

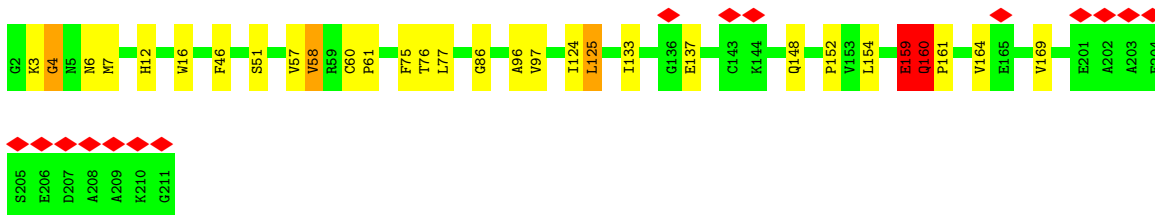
- Molecule 1: 60S ribosomal protein L13a

Chain CO:  94% 5%



- Molecule 2: 60S ribosomal protein L13

Chain CL:  7% 86% 12% ..



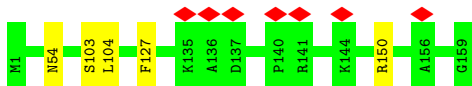
- Molecule 3: 60S ribosomal protein L23

Chain CV:  98%



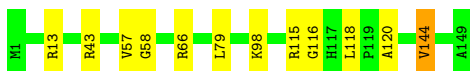
- Molecule 4: 60S ribosomal protein L14

Chain CM:  97%



- Molecule 5: 60S ribosomal protein L27a

Chain Ca:  92% 7%



- Molecule 6: 60S ribosomal protein L15

Chain CN: 91% 8%



- Molecule 7: 60S ribosomal protein L10

Chain CI: 6% 96%



- Molecule 8: 60S ribosomal protein L5

Chain CD: 96%



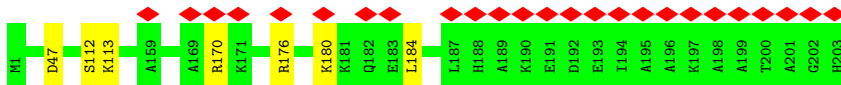
- Molecule 9: 60S ribosomal protein L18

Chain CQ: 94% 5%



- Molecule 10: 60S ribosomal protein L19

Chain CR: 12% 97%




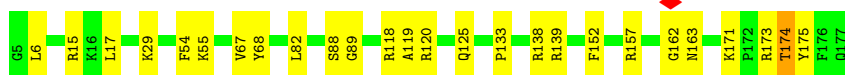
- Molecule 11: 60S ribosomal protein L8

Chain CA: 96%



- Molecule 12: 60S ribosomal protein L18a

Chain CS:  85% 14%



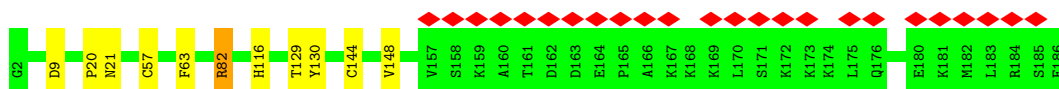
- Molecule 13: RE62581p

Chain CT:  92% 7%



- Molecule 14: 60S ribosomal protein L17

Chain CP:  13% 94% 5%



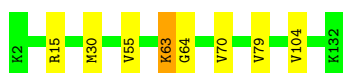
- Molecule 15: IP17216p

Chain CX:  95% 5%



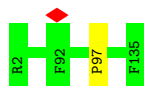
- Molecule 16: GEO07453p1

Chain CY:  94% 5%




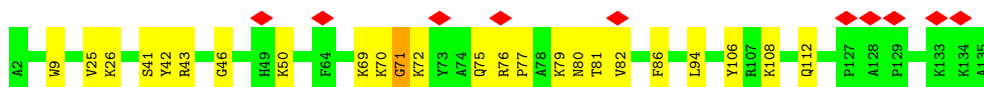
- Molecule 17: 60S ribosomal protein L27

Chain CZ:  99%



- Molecule 18: 60S ribosomal protein L28

Chain Cr:  7% 82% 17%




- Molecule 19: FI02809p

Chain Ch:  94% 6%



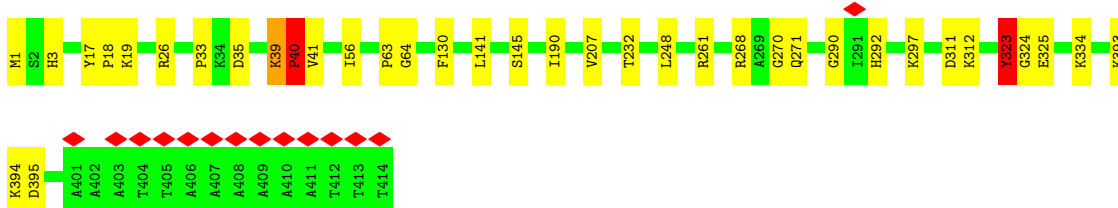
- Molecule 20: 60S ribosomal protein L29

Chain Cb:  88% 11%



- Molecule 21: 60S ribosomal protein L3

Chain CB:  91% 8%



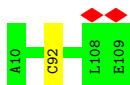
- Molecule 22: 60S ribosomal protein L7

Chain CF:  95%



- Molecule 23: RE25263p

Chain Cc:  99%




- Molecule 24: 60S ribosomal protein L32

Chain Ce:  95%



- Molecule 25: GEO07455p1

Chain Cf:  84% 15%



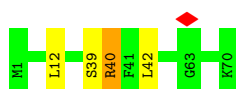
- Molecule 26: 60S ribosomal protein L36

Chain Ci:  90% 10%



- Molecule 27: 60S ribosomal protein L38

Chain Ck:  94%



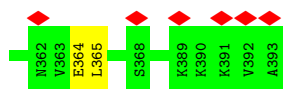
- Molecule 28: 60S ribosomal protein L39

Chain Cl:  98%



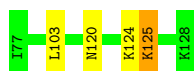
- Molecule 29: 60S ribosomal protein L4

Chain CC:  91% 8%



- Molecule 30: Ubiquitin-60S ribosomal protein L40

Chain Cm:  92% 6%



- Molecule 31: 60S ribosomal protein L41

Chain Cn:  96%



- Molecule 32: 60S ribosomal protein L37a



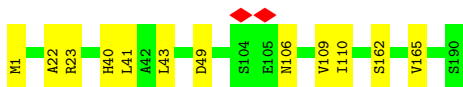
- Molecule 33: TA01007p



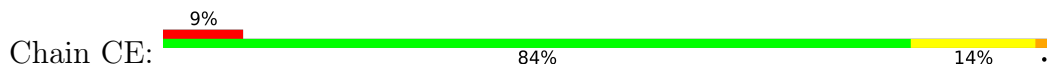
- Molecule 34: 60S ribosomal protein L11



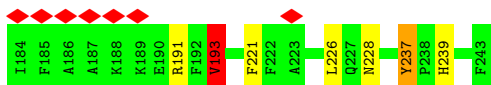
- Molecule 35: 60S ribosomal protein L9



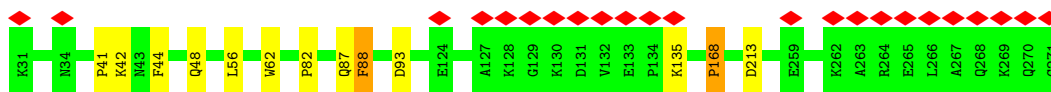
- Molecule 36: Ribosomal protein L6, isoform A



- Molecule 37: 60S ribosomal protein L7a



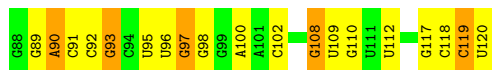
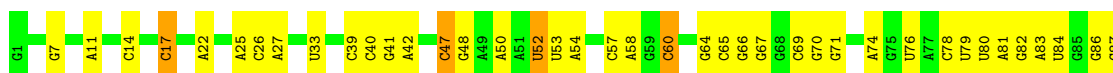




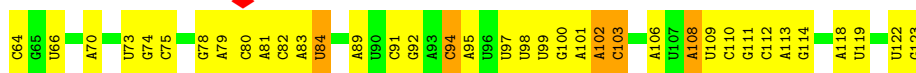
• Molecule 38: 2S ribosomal RNA



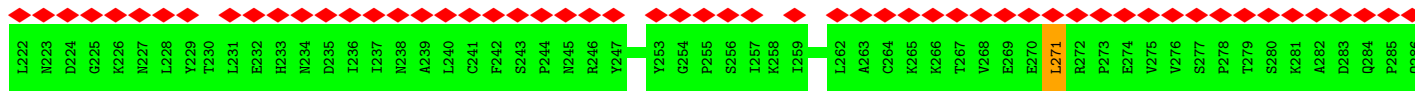
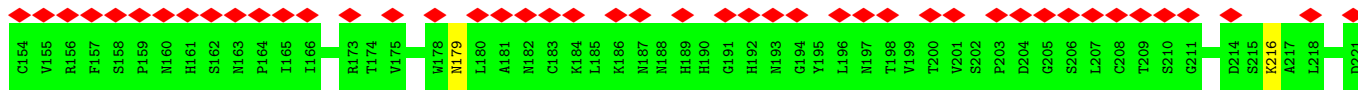
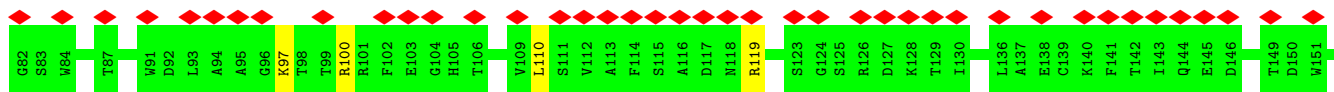
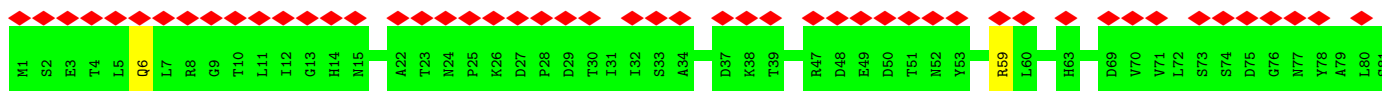
• Molecule 39: 5S ribosomal RNA



• Molecule 40: 5.8S ribosomal RNA

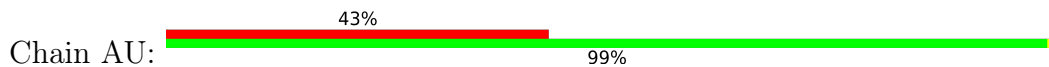


• Molecule 41: Guanine nucleotide-binding protein subunit beta-like protein

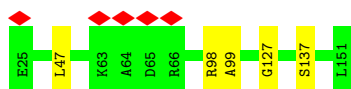




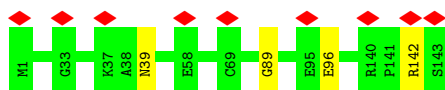
- Molecule 42: 40S ribosomal protein S20



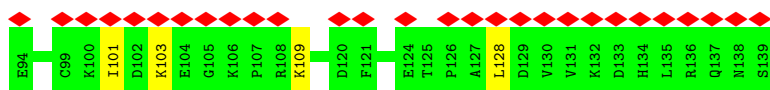
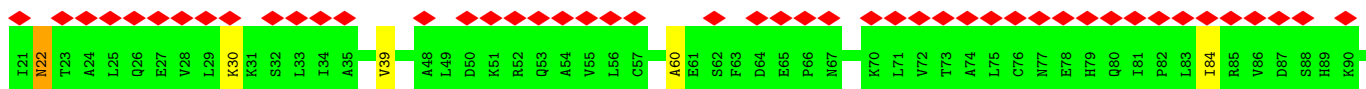
- Molecule 43: 40S ribosomal protein S14a



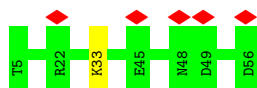
- Molecule 44: 40S ribosomal protein S23



- Molecule 45: 40S ribosomal protein S12

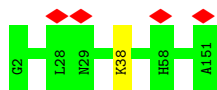


- Molecule 46: 40S ribosomal protein S29

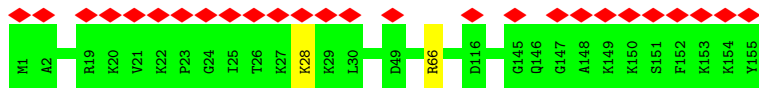


- Molecule 47: 40S ribosomal protein S13

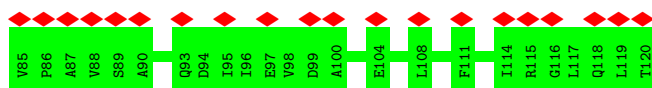
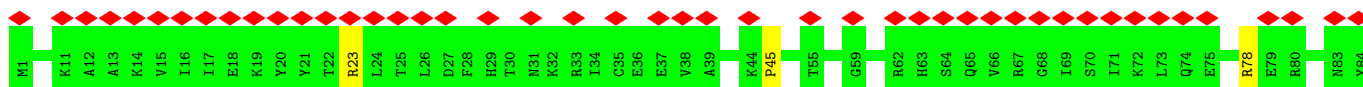




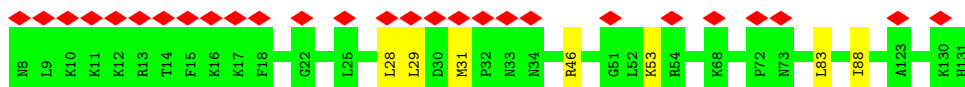
- Molecule 48: 40S ribosomal protein S11



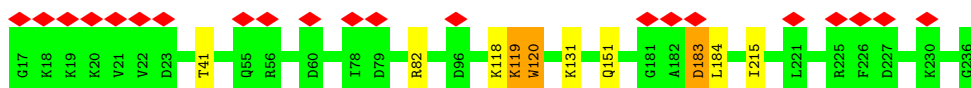
- Molecule 49: 40S ribosomal protein S17



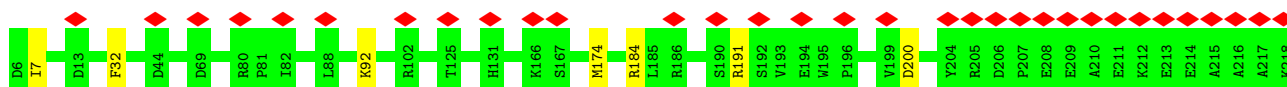
- Molecule 50: GEO07301p1



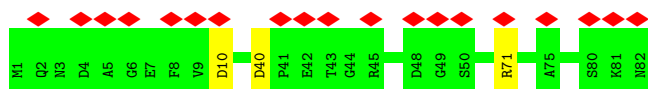
- Molecule 51: 40S ribosomal protein S3a



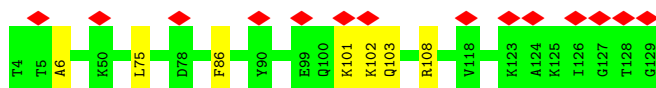
- Molecule 52: 40S ribosomal protein SA



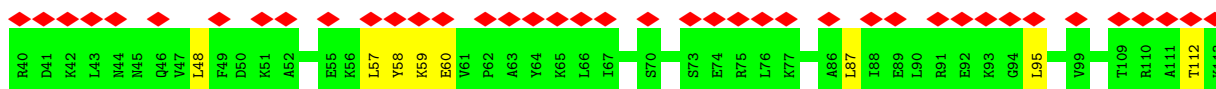
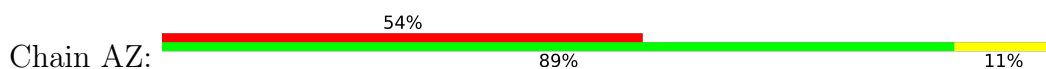
- Molecule 53: 40S ribosomal protein S21



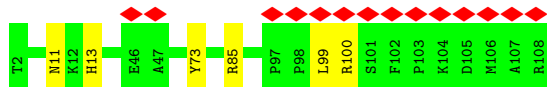
- Molecule 54: 40S ribosomal protein S24



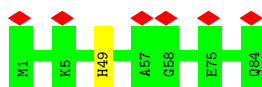
- Molecule 55: 40S ribosomal protein S25



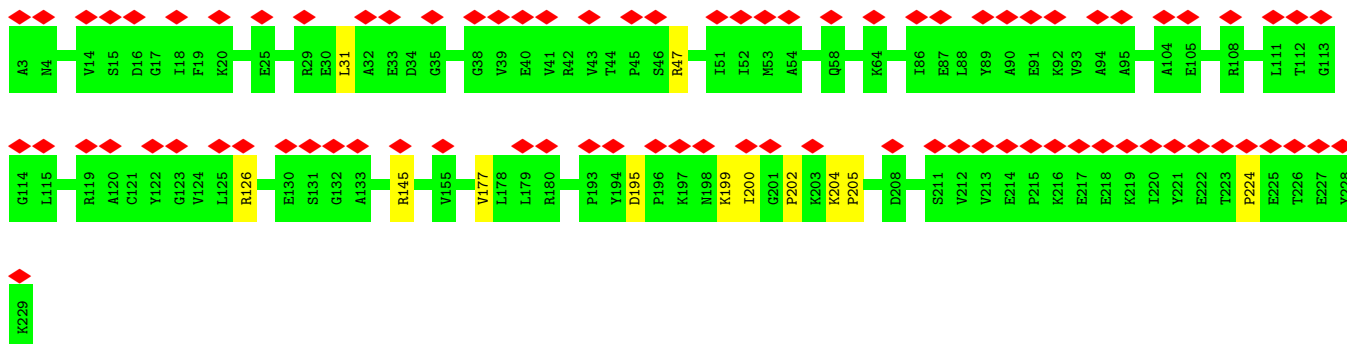
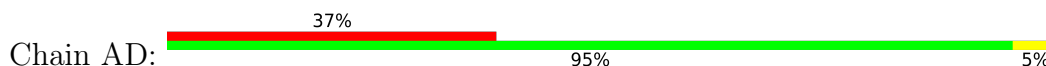
- Molecule 56: 40S ribosomal protein S26



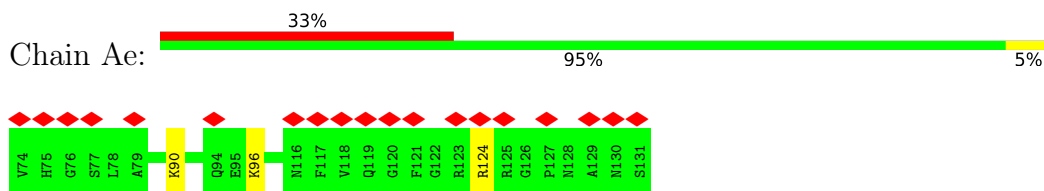
- Molecule 57: 40S ribosomal protein S27



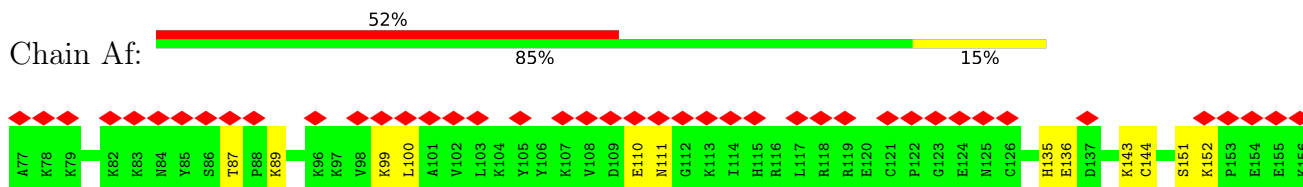
- Molecule 58: 40S ribosomal protein S3



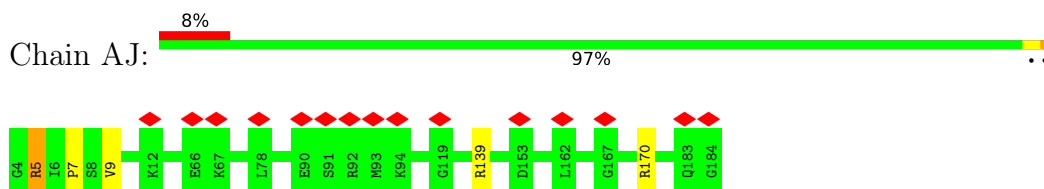
- Molecule 59: 40S ribosomal protein S30



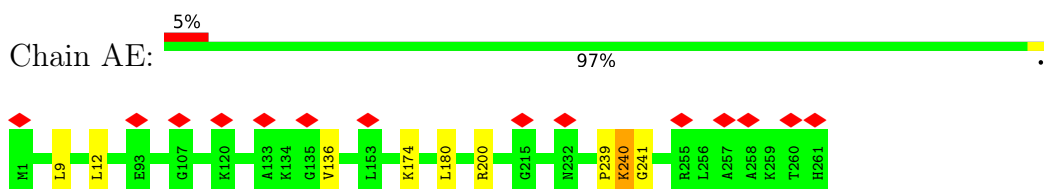
- Molecule 60: Ubiquitin-40S ribosomal protein S27a



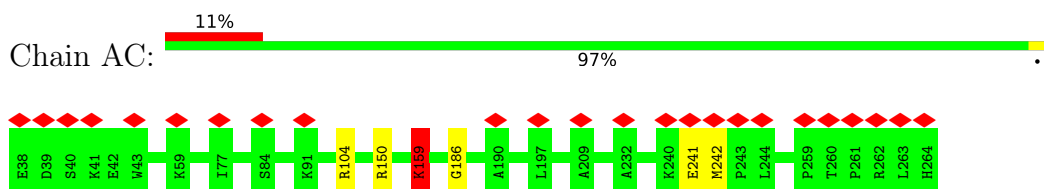
- Molecule 61: 40S ribosomal protein S9



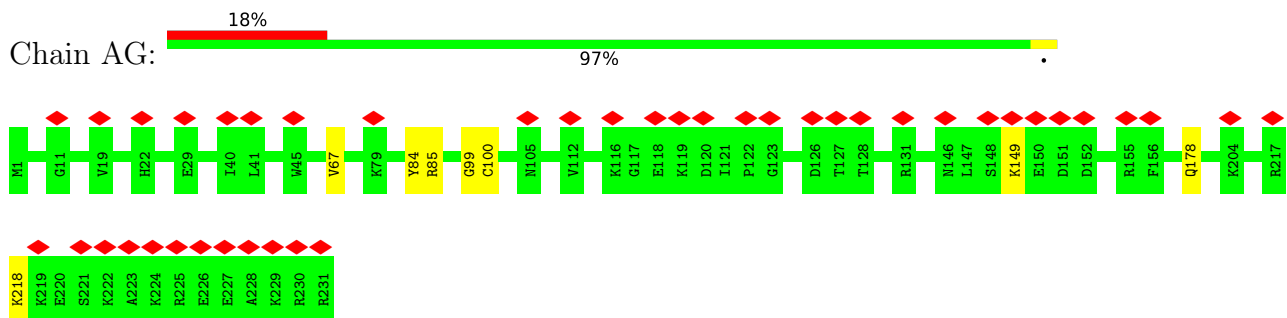
- Molecule 62: 40S ribosomal protein S4



- Molecule 63: 40S ribosomal protein S2

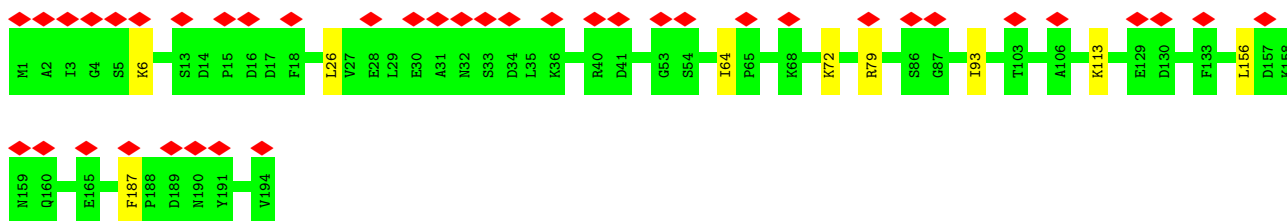


- Molecule 64: 40S ribosomal protein S6



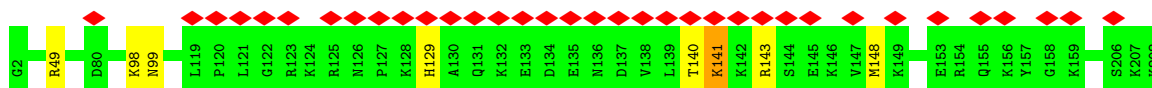
- Molecule 65: 40S ribosomal protein S7

Chain AH: 21% 95% 5%



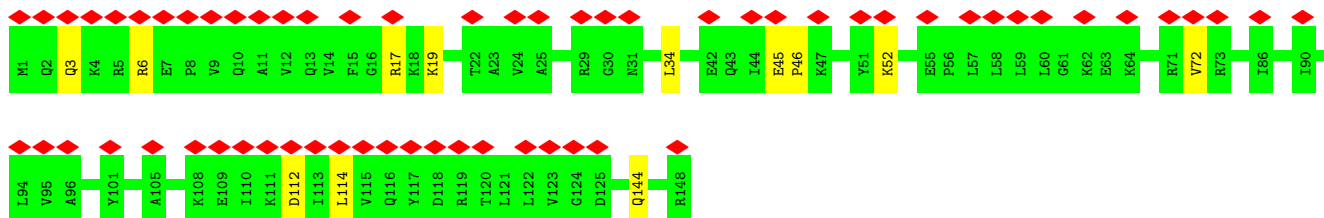
- Molecule 66: 40S ribosomal protein S8

Chain AI: 17% 96%



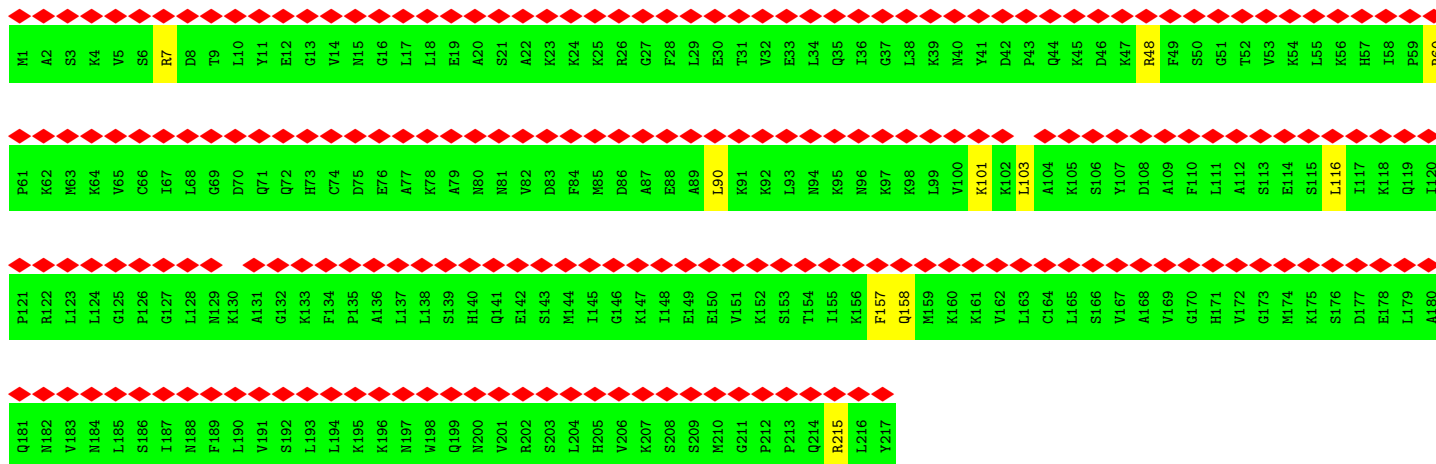
- Molecule 67: 40S ribosomal protein S16

Chain AQ: 42% 92% 8%



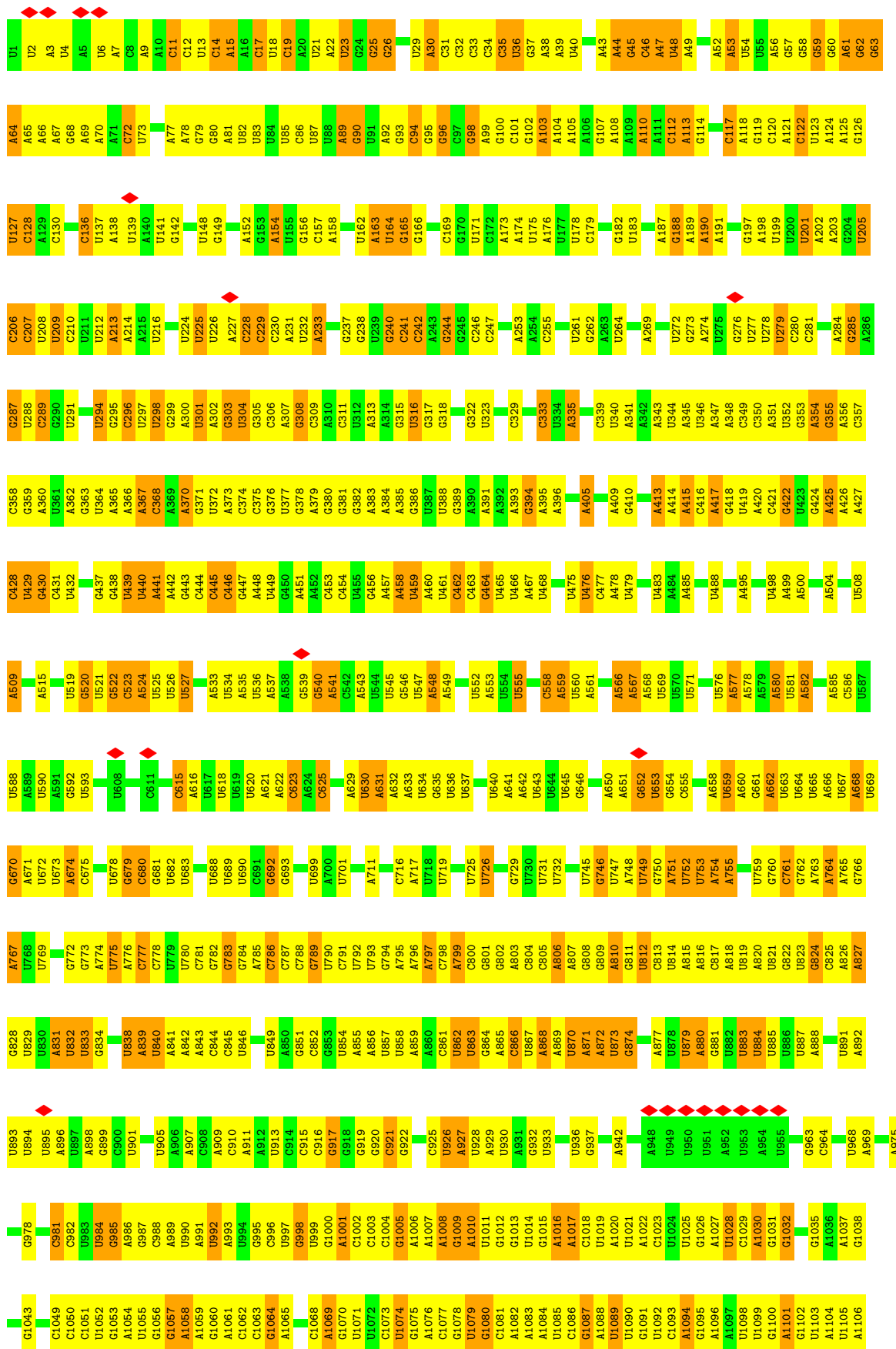
- Molecule 68: 60S ribosomal protein L10a-2

Chain Cz: 99% 95% 5%



- Molecule 69: 28S ribosomal RNA

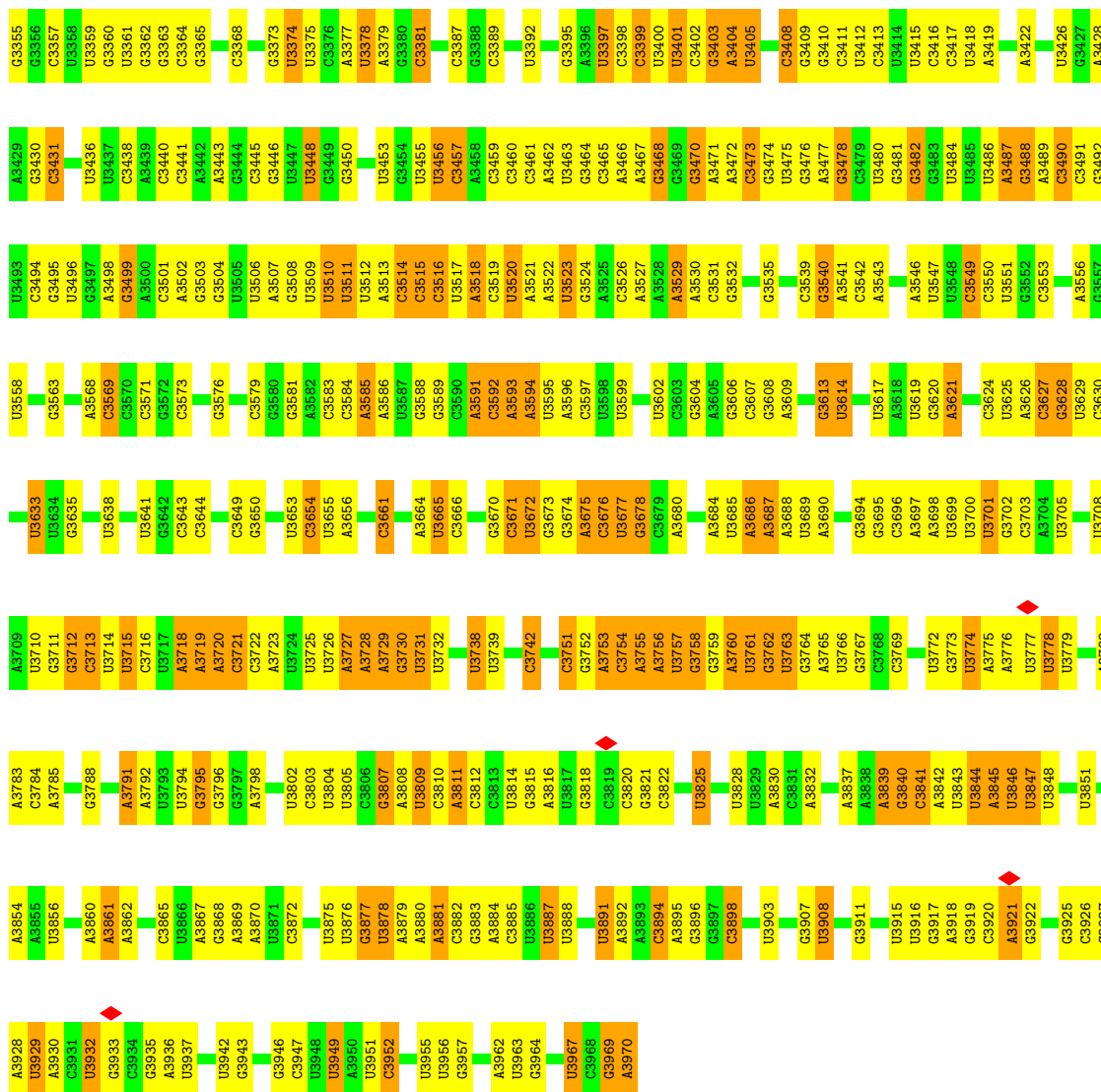
Chain A5: 6% 37% 46% 17%



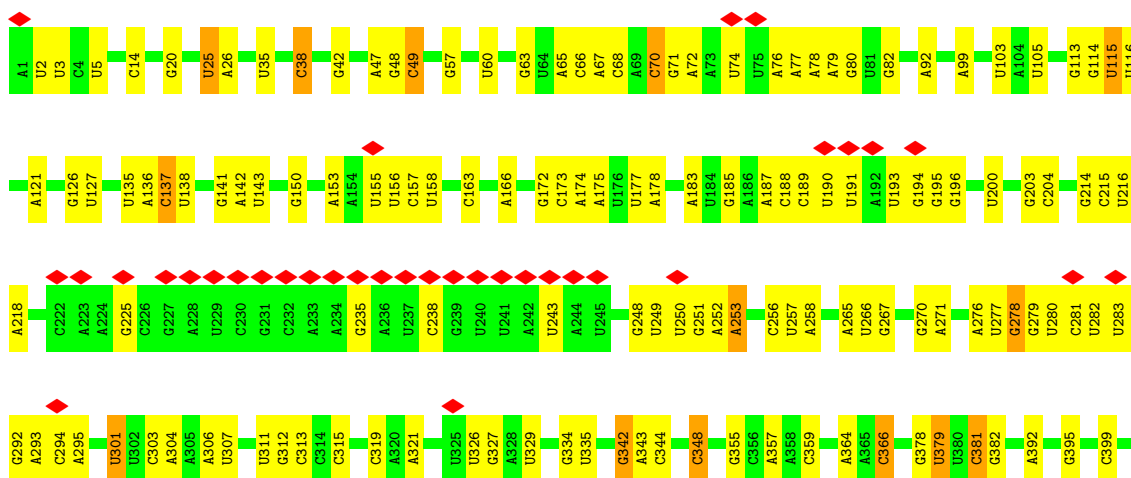
A2075	A1889	G1715	C1650	G1581	A1516	C1447	U1376	A1313	C1245	A1167	G1107
A2076	U1890	G1718	C1651	G1582	A1517	G1448	A1377	U1314	U1246	G1168	G1108
A2077	C1891	G1719	G1652	A1588	A1518	G1449	A1378	A1315	G1169	G1169	G1109
C2078	C1892	G1720	G1653	A1589	A1519	G1450	U1379	A1316	U1170	G1170	G1110
U2079	C1893	A1721	C1654	A1590	U1520	G1451	G1380	A1317	G1171	G1171	C1111
U2082	C1898	C1722	U1655	U1591	G1521	A1452	U1381	A1318	A1253	G1172	G1112
G2083	A1784	U1723	G1657	U1592	G1522	U1453	U1382	A1319	U1954	U1173	A1113
G2084	G1785	G1724	G1658	U1593	A1523	C1454	A1383	U1320	U1285	G1174	A1114
U2088	G1786	A1725	G1659	U1594	U1524	A1455	C1384	G1321	A1288	A1175	A1115
A2089	C1787	G1726	A1659	G1595	G1525	U1456	U1385	G1324	C1258	A1176	A1116
A2091	A1790	A1727	A1660	A1596	G1526	U1457	U1386	A1324	A1259	U1177	A1117
C2092	A1791	G1728	C1661	A1597	C1527	G1457	G1387	A1194	U1260	U1178	A1118
U2093	A1792	U1729	U1662	A1598	G1528	A1458	C1388	A1183	A1261	A1182	C1119
U2094	G1793	A1730	G1663	C1599	C1529	A1459	C1389	A1192	C1262	U1183	C1120
U2095	A1794	G1731	C1664	G1604	U1530	A1460	C1390	A1192	U1263	A1192	A1121
U2096	G1795	G1732	C1665	G1605	U1531	A1461	A1391	A1193	U1264	U1122	U1122
U2097	A1796	A1733	U1667	G1606	A1532	U1462	A1392	A1194	U1265	A1194	C1123
C2013	A1797	G1734	G1668	A1607	A1533	C1463	A1393	A1195	G1279	A1194	G1124
C2014	A1798	G1735	G1669	G1608	G1534	G1464	U1394	U1195	U1269	A1196	A1125
G2015	A1799	G1736	U1670	U1609	U1535	A1465	U1395	C1332	G1270	A1197	A1126
G2016	U1800	U1737	U1671	A1610	G1536	A1466	A1396	C1333	G1271	U1198	C1127
G2017	U1801	U1738	A1672	G1611	U1537	A1467	A1399	C1334	G1272	U1199	C1128
G2018	U1802	U1739	C1673	A1612	U1538	U1468	A1402	A1202	G1273	A1202	A1129
G2019	C1803	C1740	A1674	G1613	A1539	U1469	U1403	A1203	A1274	A1203	C1130
G2020	A1804	G1741	G1675	A1614	U1540	U1470	C1404	C1204	A1275	C1204	C1131
U2030	U1807	G1745	U1676	G1615	A1541	G1471	U1404	U1205	G1276	U1205	U1132
U2031	A1808	A1746	C1678	G1616	C1542	G1472	A1405	U1206	A1277	U1206	A1133
U2032	A1809	U1747	U1679	A1617	C1543	U1473	U1406	G1207	A1278	G1207	G1134
U2033	A1810	G1748	U1680	A1618	U1544	A1474	G1407	G1208	C1279	A1208	U1135
U2034	A1811	U1749	U1681	G1619	U1545	G1475	C1408	U1209	U1282	U1208	A1136
U2035	A1812	A1750	G1682	A1620	A1546	A1476	A1408	A1210	A1283	A1209	G1137
U2036	U1859	G1751	U1683	A1621	U1547	G1477	G1409	A1211	A1284	A1210	C1138
U2037	A1860	U1752	G1684	G1622	A1548	U1478	A1410	U1139	A1285	U1139	U1139
U2038	U1861	G1753	U1685	A1623	U1549	G1479	U1411	G1140	C1285	G1212	G1140
U2039	U1862	U1754	G1686	G1624	U1551	U1480	C1413	G1141	U1288	G1213	G1141
U2040	U1863	U1755	U1687	U1625	U1552	G1481	C1414	U1142	U1289	U1288	U1142
U2041	U1864	G1756	A1688	A1626	C1553	U1482	A1415	U1143	C1289	C1144	U1143
U2042	U1865	U1757	G1689	U1627	C1554	U1483	U1416	C1144	U1290	C1144	C1144
U2043	U1866	A1758	U1690	G1628	C1555	U1484	G1417	U1219	U1291	U1220	C1146
U2044	U1867	U1759	A1691	A1629	A1558	A1485	A1418	U1221	G1292	U1221	C1146
U2045	U1868	G1760	G1692	G1630	A1559	A1486	A1419	A1222	U1293	A1222	U1147
U2046	U1869	U1761	A1693	A1631	A1560	A1487	U1420	A1223	U1294	A1223	C1148
U2047	U1870	U1762	A1694	G1632	A1561	A1488	G1421	G1226	U1295	G1226	C1149
U2048	U1871	A1763	A1695	A1633	A1562	A1489	G1422	U1227	U1296	C1227	A1151
U2049	A1872	G1764	A1696	G1634	A1563	A1490	C1423	U1228	A1297	U1228	A1152
U2050	A1873	U1765	U1697	A1635	A1564	A1491	G1424	U1229	A1298	C1228	G1153
U2051	A1874	U1766	A1698	G1636	U1565	A1492	U1425	U1230	A1299	U1229	G1153
U2052	U1875	A1767	U1699	A1637	A1566	A1493	U1426	A1231	G1300	U1230	U1154
U2053	U1700	G1768	U1700	U1639	U1567	A1494	G1427	A1232	A1301	U1231	U1155
U2054	C1701	U1769	G1701	U1640	U1570	C1498	U1430	U1233	U1302	U1232	U1156
U2055	G1702	G1770	G1702	A1641	U1571	A1501	A1430	U1234	C1303	G1233	C1157
U2056	G1703	U1771	G1642	G1643	A1572	A1502	A1435	A1158	A1304	C1158	C1158
U2057	G1704	U1772	A1709	G1644	A1573	A1503	A1436	U1159	A1305	C1159	C1159
U2058	U1705	U1773	G1710	A1645	U1574	A1504	A1437	U1160	G1306	U1160	U1160
U2059	U1706	C1774	U1711	U1646	U1575	A1505	A1438	A1161	G1307	A1238	A1161
U2060	U1707	U1775	G1712	A1647	A1576	A1506	A1439	A1162	U1308	A1239	A1162
U2061	U1708	U1776	U1713	A1648	U1577	A1507	A1440	A1163	U1309	A1240	G1163
U2062	U1709	U1777	U1714	G1649	U1578	A1508	C1442	A1164	A1310	C1241	G1164
U2063	U1710	U1778	U1715	U1649	U1579	G1510	U1442	A1165	A1311	G1242	A1165
U2064	U1711	U1779	U1716	U1649	U1580	U1513	U1442	A1166	G1312	A1243	U1166
U2065	U1712	U1780	U1717	U1649	U1580	U1514	U1442	U1167	G1312	U1244	U1166

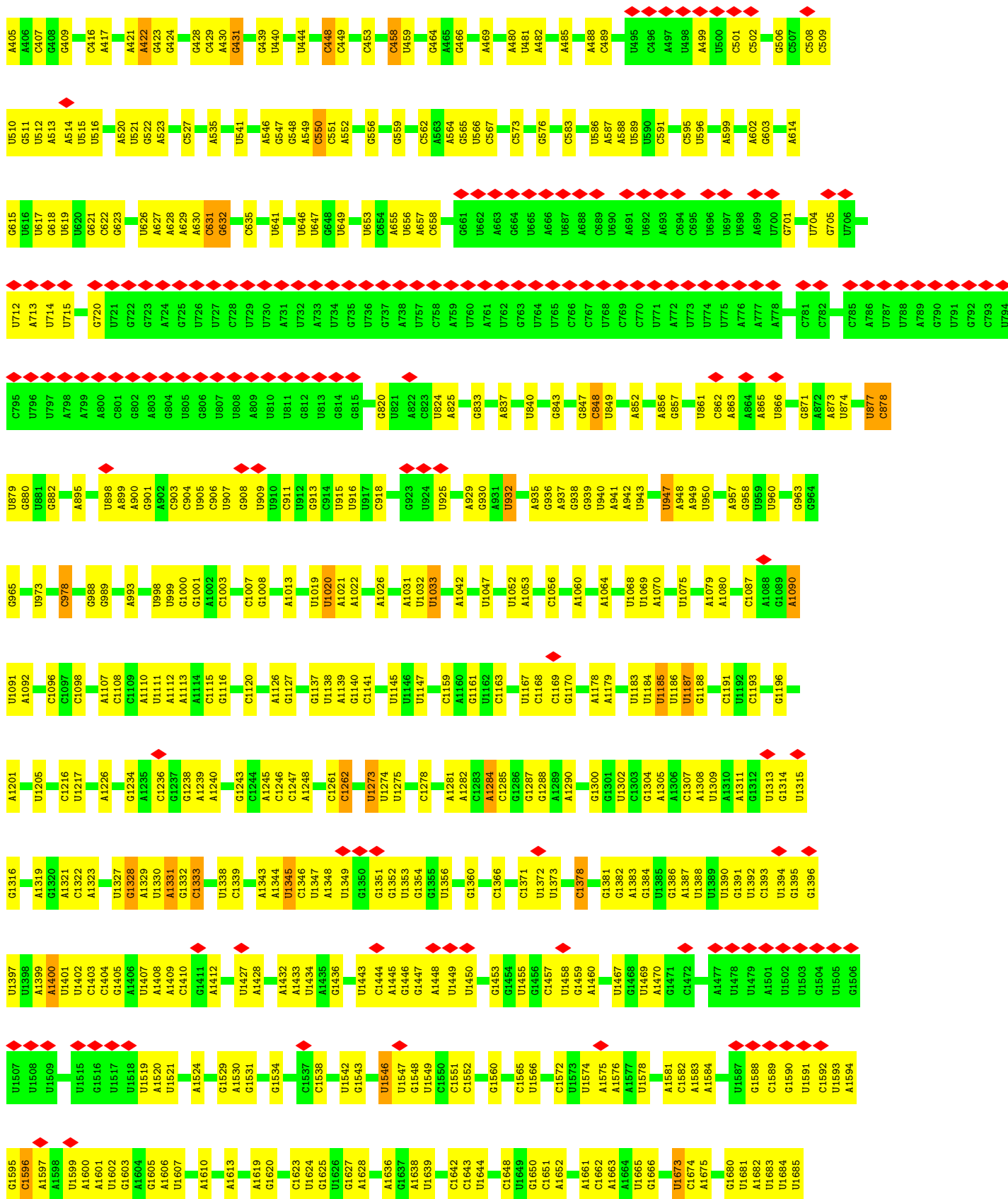


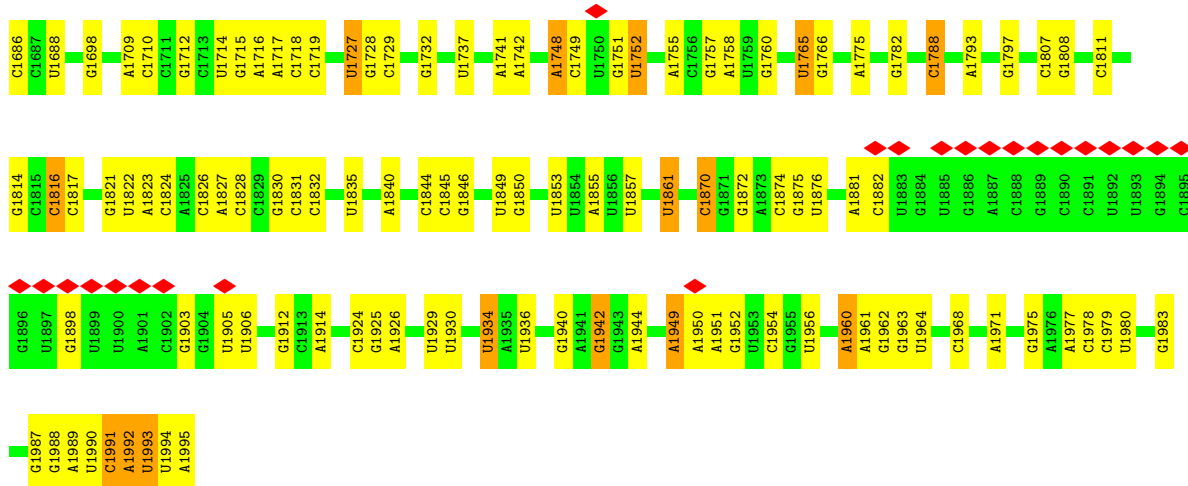
G3286	G3287	C3288	U3289	G3290	G3291	G3292	G3293	G3294	G3295	G3296	G3297	G3298	G3299	U3300	G3303	U3304	U3305	U3306	U3307	G3308	G3309	G3310	A3311	U3316	U3317	G3318	G3319	G3320	A3321	U3325	U3326	U3327	G3328	G3329	U3330	A3331	G3332	G3333	U3334	G3335	G3336	G3337	G3338	G3339	G3340	G3341	G3342	G3343	G3344	G3345	G3346	G3347	G3348	G3349	U3350	G3353	G3354	A3141	G3142	U3143	G3144	G3145	G3146	G3147	G3148	G3149	G3150	G3151	G3152	G3153	A3158	U3161	G3162	U3163	G3164	U3165	G3166	U3167	U3168	U3169	U3170	A3171	G3172	G3173	G3174	G3175	G3176	G3177	U3178	G3181	G3182	G3183	G3184	U3185	G3186	G3187	G3188	U3189	A3190	G2191	U2192	G2193	A2194	A2195	U2196	A2197	G2198	A2199	A2200	U2201	A2202	A2203	U2204	G2205	G2206	A2207	G2208	G2209	U2210	A2211	A2212	G2213	G2214	G2215	A2216	G2217	G2218	G2219	G2220	G2221	G2222	G2223	A2224	G2225	A2226	U2227	G2228	G2229	G2230	A2231	U2232	G2233	G2234	G2235	G2236	G2237	G2238	G2239	U2240	U2241	G2242	G2243	G2244	G2245	G2246	U2247	A2248	G2251	U2254	G2255	G2256	G2257	G2258	G2259	U2267	G2268	A2269	G2270	G2271	U2272	A2273	G2274	U2275	G2276	A2277	A2278	G2279	U2280	U2281	A2282	A2283	A2284	U2285	G2286	G2287	G2288	G2289	G2290	A2291	G2292	G2293	U2294	G2295	G2296	G2297	G2298	G2299	A2300	U2301	U2302	U2303	U2304	U2305	U2306	U2307	U2308	U2309	U2310	U2311	U2312	U2313	U2314	U2315	U2316	U2317	U2318	U2319	U2320	U2321	U2322	U2323	U2324	U2325	U2326	U2327	U2328	U2329	U2330	U2331	U2332	U2333	U2334	U2335	U2336	U2337	U2338	U2339	U2340	U2341	U2342	U2343	U2344	U2345	U2346	U2347	U2348	U2349	U2350	U2351	U2352	U2353	U2354	U2355	U2356	U2357	U2358	U2359	U2360	U2361	U2362	U2363	U2364	U2365	U2366	U2367	U2368	U2369	U2370	U2371	U2372	U2373	U2374	U2375	U2376	U2377	U2378	U2379	U2380	U2381	U2382	U2383	U2384	U2385	U2386	U2387	U2388	U2389	U2390	U2391	U2392	U2393	U2394	U2395	U2396	U2397	U2398	U2399	U2400	U2401	U2402	U2403	U2404	U2405	U2406	U2407	U2408	U2409	U2410	U2411	U2412	U2413	U2414	U2415	U2416	U2417	U2418	U2419	U2420	U2421	U2422	U2423	U2424	U2425	U2426	U2427	U2428	U2429	U2430	U2431	U2432	U2433	U2434	U2435	U2436	U2437	U2438	U2439	U2440	U2441	U2442	U2443	U2444	U2445	U2446	U2447	U2448	U2449	U2450	U2451	U2452	U2453	U2454	U2455	U2456	U2457	U2458	U2459	U2460	U2461	U2462	U2463	U2464	U2465	U2466	U2467	U2468	U2469	U2470	U2471	U2472	U2473	U2474	U2475	U2476	U2477	U2478	U2479	U2480	U2481	U2482	U2483	U2484	U2485	U2486	U2487	U2488	U2489	U2490	U2491	U2492	U2493	U2494	U2495	U2496	U2497	U2498	U2499	U2500	U2501	U2502	U2503	U2504	U2505	U2506	U2507	U2508	U2509	U2510	U2511	U2512	U2513	U2514	U2515	U2516	U2517	U2518	U2519	U2520	U2521	U2522	U2523	U2524	U2525	U2526	U2527	U2528	U2529	U2530	U2531	U2532	U2533	U2534	A2537	U2538	U2539	C2542	C2543	U2544	U2545	U2546	U2547	U2548	U2549	G2552	U2553	U2554	U2555	U2556	U2557	U2558	U2559	U2560	U2561	U2562	U2563	U2564	U2565	U2566	U2567	U2568	U2569	U2570	U2571	U2572	U2573	U2574	U2575	U2576	U2577	U2578	U2579	U2580	U2581	U2582	U2583	U2584	U2585	U2586	U2587	U2588	U2589	U2590	U2591	U2592	U2593	U2594	U2595	U2596	U2597	U2598	U2599	U2600	U2601	U2602	U2603	U2604	U2605	U2606	U2607	U2608	U2609	U2610	U2611	U2612	U2613	U2614	U2615	U2616	U2617	U2618	U2619	U2620	U2621	U2622	U2623	U2624	U2625	U2626	U2627	U2628	U2629	U2630	U2631	U2632	U2633	U2634	U2635	U2636	U2637	U2638	U2639	U2640	U2641	U2642	U2643	U2644	U2645	U2646	U2647	U2648	U2649	U2650	U2651	U2652	U2653	U2654	U2655	U2656	U2657	U2658	U2659	U2660	U2661	U2662	U2663	U2664	U2665	U2666	U2667	U2668	U2669	U2670	U2671	U2672	U2673	U2674	U2675	U2676	U2677	U2678	U2679	U2680	U2681	U2682	U2683	U2684	U2685	U2686	U2687	U2688	U2689	U2690	U2691	U2692	U2693	U2694	U2695	U2696	U2697	U2698	U2699	U2700	U2701	U2702	U2703	U2704	U2705	U2706	U2707	U2708	U2709	U2710	U2711	U2712	U2713	U2714	U2715	U2716	U2717	U2718	U2719	U2720	U2721	U2722	U2723	U2724	U2725	U2726	U2727	U2728	U2729	U2730	U2731	U2732	U2733	U2734	U2735	U2736	U2737	U2738	U2739	U2740	U2741	U2742	U2743	U2744	U2745	U2746	U2747	U2748	U2749	U2750	U2751	U2752	U2753	U2754	U2755	U2756	U2757	U2758	U2759	U2760	U2761	U2762	U2763	U2764	U2765	U2766	U2767	U2768	U2769	U2770	U2771	U2772	U2773	U2774	U2775	U2776	U2777	U2778	U2779	U2780	U2781	U2782	U2783	U2784	U2785	U2786	U2787	U2788	U2789	U2790	U2791	U2792	U2793	U2794	U2795	U2796	U2797	U2798	U2799	U2800	U2801	U2802	U2803	U2804	U2805	U2806	U2807	U2808	U2809	U2810	U2811	U2812	U2813	U2814	U2815	U2816	U2817	U2818	U2819	U2820	U2821	U2822	U2823	U2824	U2825	U2826	U2827	U2828	U2829	U2830	U2831	U2832	U2833	U2834	U2835	U2836	U2837	U2838	U2839	U2840	U2841	U2842	U2843	U2844	U2845	U2846	U2847	U2848	U2849	U2850	U2851	U2852	U2853	U2854	U2855	U2856	U2857	U2858	U2859	U2860	U2861	U2862	U2863	U2864	U2865	U2866	U2867	U2868	U2869	U2870	U2871	U2872	U2873	U2874	U2875	U2876	U2877	U2878	U2879	U2880	U2881	U2882	U2883	U2884	U2885	U2886	U2887	U2888	U2889	U2890	U2891	U2892	U2893	U2894	U2895	U2896	U2897	U2898	U2899	U2900	U2901	U2902	U2903	U2904	U2905	U2906	U2907	U2908	U2909	U2910	U2911	U2912	U2913	U2914	U2915	U2916	U2917	U2918	U2919	U2920	U2921	U2922	U2923	U2924	U2925	U2926	U2927	U2928	U2929	U2930	U2931	U2932	U2933	U2934	U2935	U2936	U2937	U2938	U2939	U2940	U2941	U2942	U2943	U2944	U2945	U2946	U2947	U2948	U2949	U2950	U2951	U2952	U2953	U2954	U2955	U2956	U2957	U2958	U2959	U2960	U2961	U2962	U2963	U2964	U2965	U2966	U2967	U2968	U2969	U2970	U2971	U2972	U2973	U2974	U2975	U2976	U2977	U2978	U2979	U2980	U2981	U2982	U2983	U2984	U2985	U2986	U2987	U2988	U2989	U2990	U2991	U2992	U2993	U2994	U2995	U2996	U2997	U2998	U2999	G3000	G3003	A3004	A3005	U3008	G3011	G3014	G3015	U3016	U3017	U3018	U3019	U3020	U3021	U3022	U3023	U3024	A3025	U3026	A3027	U3028	U3029	C3030	G3031	C3032	A3033	A3034	A3035	C3036	A3037	A3038	A3039	U3040	U3041	U3042	U3043	U3044	U3045	U3046	U3047	U3048	U3049	U3050	U3051	G3052	U3053	U3054	U3055	U3056	U3057	U3058	U3059	U3060	U3061	U3062	U3063	U3064	U3065	U3066	U3067	U3068	U3069	U3070	G3071	G3072	C3073	G3074	G3075	C3076	A3077	A3078	A3079	A3080	A3081	A3082	A3083	A3084	A3085	A3086	U3087	U3088	U3089	U3090	A3091	A3092	C3093	U3094	C3095	A3096	A3097	C3098	C3099	C3100	A3101	C3102	C3103	C3104	A3105	A3116	A3117	U3118	U3119	C3120	G3123	G3124	A3125	C3126	A3127	U3128	U3129	G3130	C3131	C3132	G3136	G3139	G3140
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------



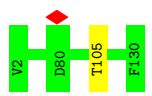
• Molecule 70: 18S ribosomal RNA



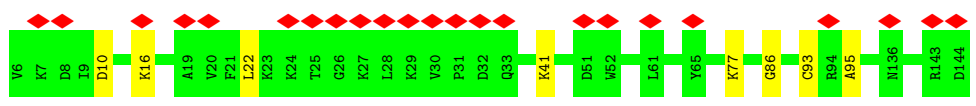




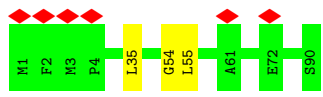
• Molecule 71: 40S ribosomal protein S15Aa



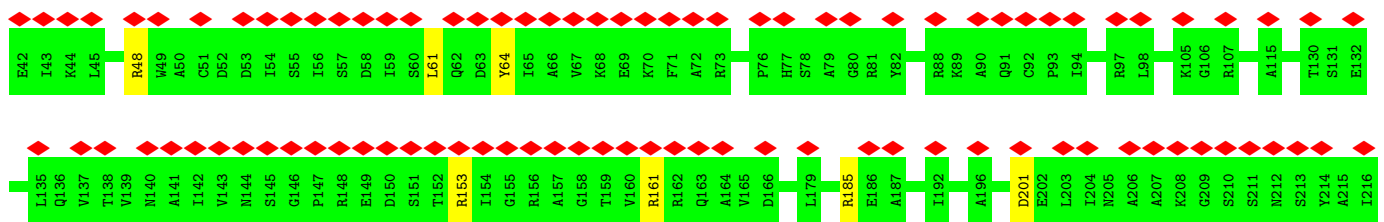
• Molecule 72: 40S ribosomal protein S19a

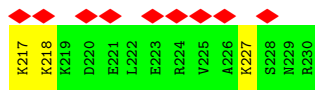


• Molecule 73: 40S ribosomal protein S10b

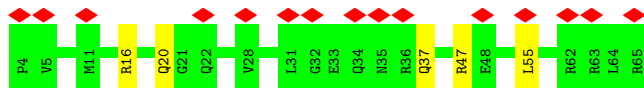


• Molecule 74: 40S ribosomal protein S5b

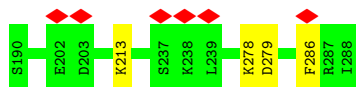




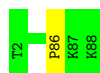
- Molecule 75: 40S ribosomal protein S28



- Molecule 76: 60S ribosomal protein L22



- Molecule 77: Probable 60S ribosomal protein L37-A



- Molecule 78: 60S ribosomal protein L24



- Molecule 79: 60S ribosomal protein L34

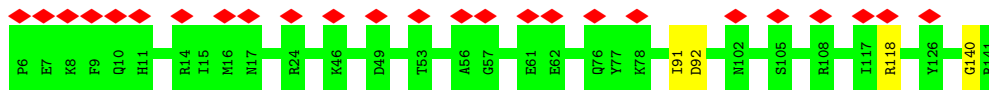


- Molecule 80: 60S ribosomal protein L31



- Molecule 81: 40S ribosomal protein S18





## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	185913	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	0.861	Depositor
Minimum map value	-0.593	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.023	Depositor
Recommended contour level	0.035	Depositor
Map size ( $\text{\AA}$ )	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 ( $\text{\AA}$ )	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	CO	0.89	0/1700	0.90	5/2277 (0.2%)
2	CL	0.74	1/1726 (0.1%)	1.02	5/2308 (0.2%)
3	CV	0.77	0/1014	0.79	1/1362 (0.1%)
4	CM	0.67	0/1326	0.77	0/1780
5	Ca	0.98	1/1235 (0.1%)	1.00	5/1640 (0.3%)
6	CN	1.02	4/1750 (0.2%)	0.99	2/2335 (0.1%)
7	CI	0.53	1/1827 (0.1%)	0.66	1/2447 (0.0%)
8	CD	0.61	0/2379	0.68	1/3196 (0.0%)
9	CQ	0.96	1/1544 (0.1%)	0.93	3/2069 (0.1%)
10	CR	0.61	0/1703	0.67	1/2255 (0.0%)
11	CA	0.84	1/1970 (0.1%)	0.83	3/2635 (0.1%)
12	CS	0.85	0/1491	1.00	4/1998 (0.2%)
13	CT	0.83	1/1326 (0.1%)	0.85	3/1773 (0.2%)
14	CP	0.92	2/1529 (0.1%)	0.87	2/2042 (0.1%)
15	CX	0.66	0/1001	0.84	3/1348 (0.2%)
16	CY	0.79	0/1094	0.81	2/1456 (0.1%)
17	CZ	0.51	0/1141	0.67	0/1517
18	Cr	0.88	2/1069 (0.2%)	1.13	3/1432 (0.2%)
19	Ch	0.65	0/1024	0.78	0/1353
20	Cb	0.62	0/628	0.95	1/832 (0.1%)
21	CB	0.79	1/3356 (0.0%)	0.91	8/4494 (0.2%)
22	CF	0.90	0/1931	0.84	4/2587 (0.2%)
23	Cc	0.55	0/779	0.64	0/1048
24	Ce	1.04	1/1132 (0.1%)	0.94	2/1508 (0.1%)
25	Cf	0.92	2/1270 (0.2%)	1.07	4/1696 (0.2%)
26	Ci	0.58	0/944	0.89	3/1250 (0.2%)
27	Ck	0.60	0/583	0.79	2/774 (0.3%)
28	Cl	0.89	0/445	0.89	1/589 (0.2%)
29	CC	0.91	1/3163 (0.0%)	0.95	8/4253 (0.2%)
30	Cm	0.57	0/435	0.78	0/575
31	Cn	0.57	0/237	0.74	1/300 (0.3%)
32	Cp	0.85	0/719	0.87	0/954
33	Co	0.76	0/887	0.88	1/1162 (0.1%)
34	CJ	0.42	0/1494	0.76	3/2001 (0.1%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
35	CH	0.61	0/1519	0.80	3/2042 (0.1%)
36	CE	0.65	1/1883 (0.1%)	0.97	5/2514 (0.2%)
37	CG	0.58	1/1968 (0.1%)	0.77	0/2637
38	A9	1.48	2/714 (0.3%)	1.50	18/1112 (1.6%)
39	A7	1.53	15/2854 (0.5%)	1.51	59/4447 (1.3%)
40	A8	1.93	42/2932 (1.4%)	1.72	96/4568 (2.1%)
41	Ag	0.32	0/2574	0.70	3/3506 (0.1%)
42	AU	0.31	0/825	0.64	0/1111
43	AO	0.35	0/965	0.70	0/1295
44	AX	0.36	0/1152	0.69	0/1540
45	AM	0.34	0/937	0.79	2/1260 (0.2%)
46	Ad	0.33	0/443	0.64	0/589
47	AN	0.38	0/1225	0.63	0/1641
48	AL	0.45	0/1296	0.64	0/1725
49	AR	0.34	0/993	0.74	0/1333
50	AP	0.32	0/1036	0.76	3/1383 (0.2%)
51	AB	0.33	0/1825	0.69	1/2448 (0.0%)
52	AA	0.33	0/1777	0.64	0/2422
53	AV	0.34	0/622	0.64	0/835
54	AY	0.30	0/1032	0.69	1/1373 (0.1%)
55	AZ	0.33	0/616	0.85	3/826 (0.4%)
56	Aa	0.41	0/883	0.69	0/1184
57	Ab	0.30	0/668	0.65	0/898
58	AD	0.31	0/1808	0.71	1/2427 (0.0%)
59	Ae	0.31	0/475	0.65	0/625
60	Af	0.33	0/672	0.74	1/887 (0.1%)
61	AJ	0.32	0/1526	0.64	1/2037 (0.0%)
62	AE	0.34	0/2096	0.67	2/2819 (0.1%)
63	AC	0.37	0/1785	0.70	1/2415 (0.0%)
64	AG	0.32	0/1891	0.67	1/2519 (0.0%)
65	AH	0.32	0/1593	0.68	2/2145 (0.1%)
66	AI	0.41	0/1689	0.80	1/2250 (0.0%)
67	AQ	0.33	0/1202	0.79	3/1608 (0.2%)
68	Cz	0.33	0/1727	0.75	3/2308 (0.1%)
69	A5	1.84	1826/86147 (2.1%)	1.78	3112/134004 (2.3%)
70	B2	0.69	4/43887 (0.0%)	1.11	255/68161 (0.4%)
71	AW	0.37	0/1046	0.60	0/1402
72	AT	0.29	0/1019	0.66	0/1367
73	AK	0.33	0/786	0.78	3/1064 (0.3%)
74	AF	0.33	0/1501	0.70	1/2017 (0.0%)
75	Ac	0.36	0/502	0.75	1/670 (0.1%)
76	CU	0.45	0/838	0.79	1/1123 (0.1%)
77	Cj	1.06	0/717	0.85	0/950

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
78	CW	0.68	0/515	0.77	0/683
79	Cg	0.80	0/855	0.84	2/1142 (0.2%)
80	Cd	0.27	0/908	0.46	0/1221
81	AS	0.28	0/1135	0.67	2/1521 (0.1%)
All	All	1.26	1910/232911 (0.8%)	1.34	3669/341300 (1.1%)

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
1	CO	0	9
2	CL	0	14
4	CM	0	2
5	Ca	0	5
6	CN	0	7
7	CI	0	5
8	CD	0	5
9	CQ	0	5
10	CR	0	3
11	CA	0	4
12	CS	0	11
13	CT	0	8
14	CP	0	3
16	CY	0	2
18	Cr	0	15
19	Ch	0	5
20	Cb	0	4
21	CB	0	18
22	CF	0	4
24	Ce	0	3
25	Cf	0	11
26	Ci	0	7
27	Ck	0	2
29	CC	0	15
30	Cm	0	2
33	Co	0	3
34	CJ	0	4
35	CH	0	4
36	CE	0	25
37	CG	0	9

*Continued on next page...*

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
43	AO	0	4
44	AX	0	1
45	AM	0	3
46	Ad	0	1
50	AP	0	3
51	AB	0	4
52	AA	0	2
53	AV	0	2
54	AY	0	1
55	AZ	0	4
56	Aa	0	2
57	Ab	0	1
58	AD	0	6
59	Ae	0	1
60	Af	0	10
61	AJ	0	4
62	AE	0	1
63	AC	0	2
64	AG	0	2
65	AH	0	3
66	AI	0	2
67	AQ	0	5
68	Cz	0	2
72	AT	0	3
74	AF	0	2
75	Ac	0	1
76	CU	0	1
78	CW	0	1
79	Cg	0	1
80	Cd	0	1
All	All	0	290

All (1910) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1313	A	N9-C4	-13.10	1.29	1.37
69	A5	1795	A	C5-C6	-12.81	1.29	1.41
69	A5	1689	G	N7-C5	-12.62	1.31	1.39
69	A5	1686	A	N9-C4	-11.02	1.31	1.37
69	A5	754	A	N9-C4	-10.88	1.31	1.37
69	A5	2734	A	N7-C5	-10.68	1.32	1.39
69	A5	1142	U	C4-O4	-10.57	1.15	1.23

Continued on next page...

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2733	G	C6-O6	-10.55	1.14	1.24
69	A5	3591	A	N9-C4	-10.37	1.31	1.37
69	A5	1687	U	C2-N3	-10.28	1.30	1.37
69	A5	1313	A	N7-C5	-10.21	1.33	1.39
69	A5	807	A	C6-N1	-10.13	1.28	1.35
69	A5	910	C	N3-C4	-10.09	1.26	1.33
69	A5	1366	G	N9-C4	-9.96	1.29	1.38
69	A5	548	A	N9-C4	-9.94	1.31	1.37
69	A5	1784	A	C6-N6	-9.93	1.26	1.33
69	A5	811	G	N9-C4	-9.80	1.30	1.38
69	A5	1712	C	C5-C6	-9.80	1.26	1.34
69	A5	2155	A	N7-C5	-9.73	1.33	1.39
69	A5	1115	A	N9-C4	-9.56	1.32	1.37
69	A5	2091	A	N9-C4	-9.54	1.32	1.37
69	A5	1784	A	C5-C4	-9.48	1.32	1.38
69	A5	2733	G	C5-C4	-9.48	1.31	1.38
69	A5	789	G	C8-N7	-9.40	1.25	1.30
69	A5	2725	U	C2-N3	-9.33	1.31	1.37
69	A5	1545	A	N9-C4	-9.26	1.32	1.37
69	A5	102	G	N7-C5	-9.22	1.33	1.39
69	A5	808	G	C8-N7	-9.18	1.25	1.30
69	A5	2151	A	C6-N1	-9.15	1.29	1.35
69	A5	1075	G	C8-N7	-9.14	1.25	1.30
69	A5	794	G	N7-C5	-9.09	1.33	1.39
69	A5	1115	A	C5-C6	-8.99	1.32	1.41
69	A5	1193	A	N9-C4	-8.97	1.32	1.37
69	A5	2151	A	N9-C4	-8.94	1.32	1.37
69	A5	754	A	N7-C5	-8.91	1.33	1.39
69	A5	2177	G	C6-N1	-8.91	1.33	1.39
69	A5	3514	C	N3-C4	-8.90	1.27	1.33
69	A5	1082	A	N7-C5	-8.90	1.33	1.39
69	A5	2731	G	C6-N1	-8.82	1.33	1.39
69	A5	1675	G	C5-C4	-8.81	1.32	1.38
69	A5	553	A	N7-C5	-8.80	1.33	1.39
69	A5	1981	A	N9-C4	-8.79	1.32	1.37
69	A5	1197	A	C6-N1	-8.76	1.29	1.35
69	A5	322	G	C8-N7	-8.75	1.25	1.30
69	A5	1686	A	C5-C6	-8.75	1.33	1.41
69	A5	1682	G	C5-C4	-8.74	1.32	1.38
69	A5	1699	A	N1-C2	-8.73	1.26	1.34
69	A5	1795	A	N7-C5	-8.71	1.34	1.39
69	A5	382	G	C5-C4	-8.66	1.32	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	359	G	C8-N7	-8.62	1.25	1.30
69	A5	2754	G	C8-N7	-8.62	1.25	1.30
69	A5	1109	G	C6-N1	-8.60	1.33	1.39
69	A5	2742	G	C5-C4	-8.59	1.32	1.38
69	A5	1327	G	C8-N7	-8.56	1.25	1.30
69	A5	1318	A	N7-C5	-8.55	1.34	1.39
69	A5	993	A	C6-N1	-8.50	1.29	1.35
69	A5	379	A	C5-C4	-8.47	1.32	1.38
69	A5	1612	G	C6-N1	-8.46	1.33	1.39
69	A5	1318	A	N9-C4	-8.46	1.32	1.37
69	A5	1140	G	C6-N1	-8.45	1.33	1.39
69	A5	808	G	C6-N1	-8.43	1.33	1.39
69	A5	1362	G	C5-C4	-8.41	1.32	1.38
69	A5	1699	A	C5-C6	8.41	1.48	1.41
69	A5	359	G	C5-C4	-8.41	1.32	1.38
69	A5	1797	A	N7-C5	-8.41	1.34	1.39
69	A5	1329	G	N7-C5	-8.40	1.34	1.39
69	A5	2773	G	C5-C4	-8.39	1.32	1.38
69	A5	379	A	N7-C5	-8.36	1.34	1.39
69	A5	2657	A	N9-C4	-8.36	1.32	1.37
69	A5	1126	A	C5-C4	-8.35	1.32	1.38
69	A5	2734	A	C5-C6	-8.34	1.33	1.41
69	A5	1315	A	N9-C4	-8.33	1.32	1.37
69	A5	1799	U	C5-C6	-8.30	1.26	1.34
69	A5	1110	G	C6-N1	-8.29	1.33	1.39
69	A5	2734	A	C6-N6	-8.29	1.27	1.33
69	A5	2492	A	N9-C4	8.28	1.42	1.37
69	A5	1673	C	N1-C6	-8.27	1.32	1.37
69	A5	1715	G	N9-C4	-8.22	1.31	1.38
69	A5	1117	A	C5-C4	-8.21	1.33	1.38
69	A5	981	C	N3-C4	-8.19	1.28	1.33
69	A5	3481	G	C2-N3	-8.15	1.26	1.32
69	A5	2772	G	C8-N7	-8.14	1.26	1.30
69	A5	378	G	N9-C8	-8.12	1.32	1.37
69	A5	1112	G	C8-N7	-8.11	1.26	1.30
69	A5	839	A	N9-C4	-8.08	1.33	1.37
69	A5	366	A	N7-C5	-8.08	1.34	1.39
69	A5	1554	C	N3-C4	-8.08	1.28	1.33
69	A5	1110	G	C8-N7	-8.07	1.26	1.30
69	A5	1169	C	C4-C5	-8.07	1.36	1.43
69	A5	3258	C	N3-C4	-8.06	1.28	1.33
6	CN	129	TYR	CD1-CE1	-8.06	1.27	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1016	A	N7-C5	-8.05	1.34	1.39
69	A5	365	A	N3-C4	-8.03	1.30	1.34
69	A5	1057	G	C5-C4	-8.03	1.32	1.38
69	A5	1111	C	C4-C5	-8.00	1.36	1.43
69	A5	1671	U	C4-O4	-7.99	1.17	1.23
69	A5	1313	A	C5-C6	-7.99	1.33	1.41
69	A5	1164	G	C5-C4	-7.97	1.32	1.38
69	A5	1165	A	C5-C4	-7.96	1.33	1.38
69	A5	1673	C	N3-C4	-7.96	1.28	1.33
69	A5	2528	A	N9-C4	-7.96	1.33	1.37
69	A5	1671	U	C2-N3	-7.95	1.32	1.37
69	A5	2783	C	N3-C4	-7.95	1.28	1.33
69	A5	1151	A	C8-N7	-7.93	1.25	1.31
69	A5	1362	G	N9-C8	-7.92	1.32	1.37
69	A5	2154	A	N9-C4	-7.92	1.33	1.37
69	A5	1795	A	N9-C4	-7.91	1.33	1.37
69	A5	1073	C	N3-C4	-7.90	1.28	1.33
69	A5	986	A	N9-C4	-7.90	1.33	1.37
69	A5	1724	A	N7-C5	-7.90	1.34	1.39
69	A5	2773	G	C2-N3	-7.89	1.26	1.32
69	A5	1595	G	C2-N3	-7.88	1.26	1.32
69	A5	2160	C	N3-C4	-7.88	1.28	1.33
69	A5	2168	G	C6-N1	-7.88	1.34	1.39
69	A5	99	A	N9-C4	-7.88	1.33	1.37
69	A5	755	A	N9-C4	-7.87	1.33	1.37
69	A5	1110	G	C2-N3	-7.87	1.26	1.32
69	A5	3540	G	C6-N1	-7.87	1.34	1.39
69	A5	373	A	N7-C5	-7.83	1.34	1.39
69	A5	2733	G	C8-N7	-7.82	1.26	1.30
69	A5	1691	A	N7-C5	-7.82	1.34	1.39
69	A5	3167	A	N7-C5	-7.81	1.34	1.39
69	A5	3226	A	N9-C4	7.81	1.42	1.37
69	A5	3519	C	N3-C4	-7.81	1.28	1.33
69	A5	1325	C	N1-C6	-7.80	1.32	1.37
69	A5	1752	G	C2-N3	-7.79	1.26	1.32
69	A5	1015	G	C5-C4	-7.79	1.32	1.38
69	A5	1689	G	C5-C6	-7.77	1.34	1.42
69	A5	787	C	N3-C4	-7.76	1.28	1.33
69	A5	1533	A	N7-C5	-7.76	1.34	1.39
69	A5	1080	G	N1-C2	-7.76	1.31	1.37
69	A5	1588	A	N9-C4	7.75	1.42	1.37
69	A5	99	A	N7-C5	-7.75	1.34	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1715	G	N3-C4	-7.75	1.30	1.35
69	A5	3478	G	C8-N7	-7.73	1.26	1.30
69	A5	2735	A	C5-C4	-7.72	1.33	1.38
69	A5	1325	C	C2-O2	-7.72	1.17	1.24
69	A5	31	C	C4-C5	-7.71	1.36	1.43
69	A5	805	C	C4-C5	-7.70	1.36	1.43
69	A5	3477	A	N3-C4	-7.70	1.30	1.34
69	A5	1685	G	C5-C4	-7.70	1.32	1.38
69	A5	2741	A	C5-C4	-7.70	1.33	1.38
69	A5	1109	G	C8-N7	-7.69	1.26	1.30
69	A5	1393	A	N9-C4	-7.69	1.33	1.37
69	A5	788	C	C2-N3	-7.68	1.29	1.35
69	A5	1150	G	C8-N7	-7.67	1.26	1.30
69	A5	2186	C	C4-C5	-7.66	1.36	1.43
69	A5	805	C	N3-C4	-7.65	1.28	1.33
69	A5	2528	A	N7-C5	-7.65	1.34	1.39
69	A5	1169	C	N3-C4	-7.62	1.28	1.33
69	A5	1318	A	C5-C6	-7.62	1.34	1.41
69	A5	32	C	N3-C4	-7.61	1.28	1.33
69	A5	1175	C	N3-C4	-7.60	1.28	1.33
69	A5	3489	A	C5-C4	-7.60	1.33	1.38
69	A5	1688	A	N7-C5	-7.58	1.34	1.39
40	A8	36	A	N7-C5	-7.58	1.34	1.39
69	A5	322	G	C5-C6	-7.58	1.34	1.42
69	A5	1327	G	N1-C2	-7.57	1.31	1.37
69	A5	1699	A	C6-N1	-7.57	1.30	1.35
69	A5	1797	A	C8-N7	-7.56	1.26	1.31
69	A5	1383	A	N7-C5	-7.55	1.34	1.39
69	A5	2733	G	C5-C6	-7.55	1.34	1.42
69	A5	3489	A	N7-C5	-7.55	1.34	1.39
69	A5	1796	A	N7-C5	-7.54	1.34	1.39
69	A5	352	U	C2-N3	-7.53	1.32	1.37
14	CP	144	CYS	CB-SG	-7.52	1.69	1.82
69	A5	1675	G	N7-C5	-7.52	1.34	1.39
69	A5	3258	C	C2-O2	-7.51	1.17	1.24
13	CT	40	VAL	CB-CG2	-7.51	1.37	1.52
69	A5	2755	G	C8-N7	-7.51	1.26	1.30
69	A5	788	C	C4-C5	-7.50	1.36	1.43
69	A5	2755	G	C5-C4	-7.49	1.33	1.38
69	A5	2718	U	C2-N3	-7.47	1.32	1.37
69	A5	3472	A	N9-C4	7.46	1.42	1.37
69	A5	1695	A	N7-C5	-7.46	1.34	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	44	A	N7-C5	-7.44	1.34	1.39
69	A5	2191	G	C2-N3	-7.43	1.26	1.32
69	A5	809	G	C6-N1	-7.42	1.34	1.39
69	A5	1784	A	N3-C4	-7.42	1.30	1.34
69	A5	1366	G	C2-N3	-7.42	1.26	1.32
69	A5	1692	G	C2-N3	-7.41	1.26	1.32
69	A5	1168	G	C6-N1	-7.40	1.34	1.39
69	A5	2734	A	C8-N7	-7.40	1.26	1.31
40	A8	24	G	N1-C2	-7.40	1.31	1.37
69	A5	379	A	N9-C8	-7.40	1.31	1.37
69	A5	357	C	N3-C4	-7.39	1.28	1.33
69	A5	2741	A	N7-C5	-7.38	1.34	1.39
69	A5	1327	G	C5-C4	-7.38	1.33	1.38
69	A5	1721	C	C4-C5	-7.38	1.37	1.43
69	A5	3675	A	N9-C4	-7.38	1.33	1.37
69	A5	2165	C	N1-C6	-7.37	1.32	1.37
69	A5	1689	G	C8-N7	-7.37	1.26	1.30
69	A5	811	G	C6-N1	-7.37	1.34	1.39
69	A5	3513	A	N3-C4	-7.37	1.30	1.34
69	A5	808	G	C5-C4	-7.37	1.33	1.38
69	A5	1009	G	N1-C2	-7.35	1.31	1.37
69	A5	1086	C	N3-C4	-7.35	1.28	1.33
69	A5	1098	U	C2-N3	-7.34	1.32	1.37
69	A5	1797	A	N9-C8	-7.34	1.31	1.37
69	A5	3173	U	C2-N3	-7.34	1.32	1.37
69	A5	2753	G	C5-C4	-7.33	1.33	1.38
69	A5	1009	G	C6-N1	-7.32	1.34	1.39
69	A5	2066	G	N7-C5	-7.32	1.34	1.39
69	A5	3274	A	C6-N1	-7.32	1.30	1.35
69	A5	1799	U	C4-C5	-7.32	1.36	1.43
69	A5	881	G	C2-N3	-7.31	1.26	1.32
69	A5	372	U	C2-N3	-7.30	1.32	1.37
69	A5	802	G	N9-C8	-7.28	1.32	1.37
69	A5	2733	G	C6-N1	-7.28	1.34	1.39
69	A5	99	A	C8-N7	-7.27	1.26	1.31
69	A5	322	G	C5-C4	-7.27	1.33	1.38
69	A5	2185	U	C2-N3	-7.27	1.32	1.37
69	A5	788	C	N3-C4	-7.26	1.28	1.33
69	A5	1176	A	N9-C4	-7.25	1.33	1.37
69	A5	1375	G	C2-N3	-7.24	1.26	1.32
69	A5	1330	G	C8-N7	-7.24	1.26	1.30
69	A5	1196	A	N9-C4	-7.24	1.33	1.37

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	809	G	C8-N7	-7.23	1.26	1.30
69	A5	2738	C	N3-C4	-7.23	1.28	1.33
69	A5	1371	A	N7-C5	-7.22	1.34	1.39
69	A5	105	A	N9-C4	-7.22	1.33	1.37
69	A5	1715	G	C2-N3	-7.21	1.26	1.32
69	A5	2760	G	C5-C4	-7.21	1.33	1.38
69	A5	3520	U	C2-N3	-7.21	1.32	1.37
69	A5	1017	A	N7-C5	-7.21	1.34	1.39
69	A5	2699	A	N9-C4	-7.21	1.33	1.37
69	A5	2216	A	N3-C4	-7.20	1.30	1.34
69	A5	784	G	C5-C4	-7.20	1.33	1.38
69	A5	1301	A	N9-C4	-7.20	1.33	1.37
69	A5	2749	G	C8-N7	-7.19	1.26	1.30
69	A5	1110	G	C5-C4	-7.18	1.33	1.38
69	A5	2732	C	N1-C6	-7.18	1.32	1.37
69	A5	92	A	C8-N7	-7.16	1.26	1.31
69	A5	3473	C	C5-C6	-7.15	1.28	1.34
69	A5	823	U	C2-N3	-7.15	1.32	1.37
69	A5	1119	C	C2-N3	-7.14	1.30	1.35
69	A5	1682	G	C6-N1	-7.14	1.34	1.39
40	A8	27	C	N3-C4	-7.14	1.28	1.33
25	Cf	92	CYS	CB-SG	-7.13	1.70	1.82
69	A5	1702	G	N3-C4	-7.13	1.30	1.35
69	A5	1120	A	N7-C5	-7.13	1.34	1.39
69	A5	2066	G	N9-C8	-7.12	1.32	1.37
69	A5	874	G	N9-C8	-7.11	1.32	1.37
40	A8	24	G	C2-N3	-7.11	1.27	1.32
69	A5	800	C	N3-C4	-7.11	1.28	1.33
69	A5	791	C	N3-C4	-7.10	1.28	1.33
69	A5	1718	G	N7-C5	-7.09	1.34	1.39
69	A5	2739	A	N9-C4	-7.09	1.33	1.37
69	A5	296	C	N3-C4	-7.09	1.28	1.33
69	A5	1004	C	N3-C4	-7.07	1.28	1.33
69	A5	1696	A	C5-C4	-7.07	1.33	1.38
69	A5	1119	C	N3-C4	-7.06	1.29	1.33
69	A5	789	G	C6-N1	-7.05	1.34	1.39
69	A5	1001	A	N7-C5	-7.05	1.35	1.39
69	A5	799	A	N7-C5	-7.05	1.35	1.39
69	A5	2155	A	C6-N6	-7.05	1.28	1.33
69	A5	2700	C	N3-C4	-7.04	1.29	1.33
69	A5	2742	G	N9-C8	-7.04	1.32	1.37
69	A5	2547	C	N1-C6	-7.02	1.32	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	3620	G	C2-N3	-7.01	1.27	1.32
69	A5	375	C	N3-C4	-7.01	1.29	1.33
69	A5	385	A	N9-C4	-7.00	1.33	1.37
69	A5	3472	A	N7-C5	-7.00	1.35	1.39
69	A5	1100	G	N7-C5	-7.00	1.35	1.39
69	A5	3477	A	N9-C4	-6.99	1.33	1.37
69	A5	874	G	N7-C5	-6.99	1.35	1.39
69	A5	1140	G	C5-C4	-6.99	1.33	1.38
69	A5	2517	A	N3-C4	-6.99	1.30	1.34
69	A5	2742	G	C8-N7	-6.99	1.26	1.30
2	CL	16	TRP	CB-CG	6.98	1.62	1.50
69	A5	1112	G	N9-C8	-6.98	1.32	1.37
69	A5	559	A	N9-C4	-6.96	1.33	1.37
69	A5	798	C	N3-C4	-6.96	1.29	1.33
69	A5	350	C	C4-C5	-6.96	1.37	1.43
69	A5	832	U	C4-C5	-6.95	1.37	1.43
69	A5	57	G	C8-N7	-6.95	1.26	1.30
69	A5	810	A	N9-C4	-6.95	1.33	1.37
69	A5	1158	C	N3-C4	-6.95	1.29	1.33
69	A5	2735	A	N3-C4	-6.94	1.30	1.34
69	A5	553	A	C5-C6	-6.93	1.34	1.41
69	A5	2198	G	C5-C4	-6.93	1.33	1.38
69	A5	783	G	C2-N3	-6.93	1.27	1.32
69	A5	2155	A	C6-N1	-6.92	1.30	1.35
69	A5	1031	G	C5-C4	-6.92	1.33	1.38
69	A5	3477	A	C6-N1	-6.91	1.30	1.35
69	A5	1076	A	C8-N7	-6.91	1.26	1.31
69	A5	1199	C	N3-C4	-6.91	1.29	1.33
69	A5	1364	A	N9-C4	-6.90	1.33	1.37
69	A5	810	A	C8-N7	-6.90	1.26	1.31
69	A5	2186	C	N3-C4	-6.90	1.29	1.33
69	A5	2735	A	C8-N7	-6.90	1.26	1.31
69	A5	39	A	N7-C5	-6.89	1.35	1.39
69	A5	370	A	N7-C5	-6.88	1.35	1.39
69	A5	1313	A	C2-N3	-6.88	1.27	1.33
69	A5	806	A	C8-N7	-6.88	1.26	1.31
69	A5	802	G	C8-N7	-6.88	1.26	1.30
69	A5	1696	A	N9-C4	-6.88	1.33	1.37
69	A5	3475	U	C2-N3	-6.88	1.32	1.37
69	A5	383	A	C8-N7	-6.88	1.26	1.31
69	A5	3672	U	C2-N3	-6.88	1.32	1.37
69	A5	1002	C	N1-C6	-6.87	1.33	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2726	A	N3-C4	-6.87	1.30	1.34
69	A5	1681	G	N7-C5	-6.87	1.35	1.39
7	CI	132	GLY	C-N	-6.86	1.18	1.34
69	A5	1168	G	C8-N7	-6.86	1.26	1.30
69	A5	2753	G	C6-N1	-6.86	1.34	1.39
69	A5	2178	U	C2-N3	-6.85	1.32	1.37
69	A5	910	C	C5-C6	-6.85	1.28	1.34
69	A5	1284	A	N9-C4	-6.85	1.33	1.37
69	A5	2769	G	C5-C4	-6.85	1.33	1.38
69	A5	1359	G	C8-N7	-6.83	1.26	1.30
69	A5	1866	G	C5-C6	-6.83	1.35	1.42
69	A5	3519	C	C4-C5	-6.83	1.37	1.43
69	A5	3621	A	N7-C5	-6.83	1.35	1.39
69	A5	1197	A	C2-N3	-6.81	1.27	1.33
69	A5	2723	A	N3-C4	-6.81	1.30	1.34
69	A5	810	A	N7-C5	-6.81	1.35	1.39
69	A5	839	A	C5-C4	-6.80	1.33	1.38
69	A5	1013	G	C6-N1	-6.80	1.34	1.39
69	A5	2739	A	C8-N7	-6.80	1.26	1.31
69	A5	809	G	C5-C4	-6.79	1.33	1.38
69	A5	543	A	N7-C5	-6.78	1.35	1.39
69	A5	2502	G	C5-C4	-6.78	1.33	1.38
69	A5	1368	A	N7-C5	-6.78	1.35	1.39
69	A5	38	A	N7-C5	-6.77	1.35	1.39
69	A5	1775	C	N3-C4	-6.76	1.29	1.33
69	A5	94	C	N3-C4	-6.76	1.29	1.33
69	A5	1087	G	N7-C5	-6.76	1.35	1.39
69	A5	2215	G	C5-C4	-6.76	1.33	1.38
69	A5	1023	C	N3-C4	-6.76	1.29	1.33
69	A5	1100	G	C5-C4	-6.76	1.33	1.38
69	A5	1170	U	C2-N3	-6.76	1.33	1.37
69	A5	1370	C	N3-C4	-6.76	1.29	1.33
69	A5	3518	A	C8-N7	-6.75	1.26	1.31
69	A5	378	G	C5-C4	-6.74	1.33	1.38
69	A5	755	A	N7-C5	-6.74	1.35	1.39
69	A5	811	G	N3-C4	-6.74	1.30	1.35
69	A5	817	C	N3-C4	-6.74	1.29	1.33
69	A5	2768	A	N3-C4	-6.74	1.30	1.34
69	A5	95	G	C5-C4	-6.73	1.33	1.38
69	A5	446	C	N1-C6	-6.73	1.33	1.37
69	A5	2224	A	C8-N7	-6.72	1.26	1.31
69	A5	3402	C	N3-C4	-6.72	1.29	1.33

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2734	A	C6-N1	-6.72	1.30	1.35
69	A5	3246	G	N9-C4	-6.72	1.32	1.38
69	A5	2755	G	N9-C8	-6.71	1.33	1.37
69	A5	821	U	C5-C6	-6.71	1.28	1.34
69	A5	3513	A	N9-C4	-6.70	1.33	1.37
69	A5	1022	A	N7-C5	-6.70	1.35	1.39
69	A5	2527	A	N7-C5	-6.70	1.35	1.39
69	A5	3540	G	N1-C2	-6.69	1.32	1.37
69	A5	33	C	C4-C5	-6.69	1.37	1.43
69	A5	3517	U	C2-N3	-6.68	1.33	1.37
69	A5	240	G	N7-C5	-6.68	1.35	1.39
69	A5	378	G	C6-N1	-6.68	1.34	1.39
69	A5	424	G	N9-C8	-6.68	1.33	1.37
69	A5	1329	G	N9-C8	-6.68	1.33	1.37
69	A5	1686	A	N7-C5	-6.68	1.35	1.39
69	A5	1797	A	C5-C6	-6.68	1.35	1.41
69	A5	2177	G	N1-C2	-6.67	1.32	1.37
69	A5	1691	A	C5-C6	-6.67	1.35	1.41
69	A5	1675	G	N9-C4	-6.66	1.32	1.38
69	A5	363	G	C8-N7	-6.66	1.26	1.30
69	A5	1075	G	N9-C8	-6.66	1.33	1.37
69	A5	99	A	N9-C8	-6.64	1.32	1.37
69	A5	787	C	C2-N3	-6.64	1.30	1.35
69	A5	1682	G	N1-C2	-6.64	1.32	1.37
69	A5	1784	A	C5-C6	-6.64	1.35	1.41
69	A5	1612	G	N9-C8	-6.63	1.33	1.37
69	A5	378	G	N7-C5	-6.63	1.35	1.39
69	A5	1687	U	N3-C4	-6.63	1.32	1.38
69	A5	365	A	N9-C4	-6.63	1.33	1.37
69	A5	1000	G	C5-C4	-6.63	1.33	1.38
69	A5	444	C	N3-C4	-6.62	1.29	1.33
69	A5	1087	G	N9-C8	-6.62	1.33	1.37
69	A5	3167	A	C5-C4	-6.62	1.34	1.38
69	A5	1134	G	N1-C2	-6.62	1.32	1.37
69	A5	1142	U	C4-C5	-6.62	1.37	1.43
69	A5	1666	A	C5-C4	-6.61	1.34	1.38
69	A5	1315	A	N3-C4	-6.61	1.30	1.34
69	A5	306	C	N3-C4	-6.61	1.29	1.33
69	A5	1626	A	N9-C4	-6.61	1.33	1.37
69	A5	2713	G	C5-C4	-6.61	1.33	1.38
69	A5	1685	G	C6-N1	-6.60	1.34	1.39
69	A5	3520	U	N3-C4	-6.59	1.32	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	784	G	N7-C5	-6.58	1.35	1.39
40	A8	16	A	C8-N7	-6.58	1.26	1.31
69	A5	1164	G	C2-N3	-6.58	1.27	1.32
69	A5	1867	A	C5-C6	-6.58	1.35	1.41
69	A5	350	C	N3-C4	-6.57	1.29	1.33
69	A5	1030	A	N9-C4	-6.56	1.33	1.37
69	A5	813	C	N1-C6	-6.56	1.33	1.37
69	A5	1606	G	C8-N7	-6.56	1.27	1.30
69	A5	35	C	N3-C4	-6.56	1.29	1.33
69	A5	1106	A	N9-C4	-6.56	1.33	1.37
69	A5	2521	A	C5-C4	-6.56	1.34	1.38
69	A5	3878	U	C2-N3	-6.55	1.33	1.37
69	A5	1118	C	N3-C4	-6.55	1.29	1.33
69	A5	2503	G	C2-N3	-6.55	1.27	1.32
69	A5	856	A	N9-C8	-6.54	1.32	1.37
69	A5	345	A	N9-C8	-6.54	1.32	1.37
69	A5	381	G	C2-N3	-6.54	1.27	1.32
69	A5	1064	G	C8-N7	-6.54	1.27	1.30
69	A5	1085	U	C2-N3	-6.54	1.33	1.37
69	A5	2738	C	N1-C6	-6.54	1.33	1.37
69	A5	2713	G	N7-C5	-6.53	1.35	1.39
69	A5	3678	G	C6-N1	-6.53	1.34	1.39
69	A5	92	A	N7-C5	-6.53	1.35	1.39
69	A5	353	G	C5-C4	-6.53	1.33	1.38
69	A5	379	A	N3-C4	-6.53	1.30	1.34
69	A5	3506	U	C2-N3	-6.51	1.33	1.37
69	A5	2754	G	N1-C2	-6.51	1.32	1.37
69	A5	424	G	C5-C4	-6.50	1.33	1.38
69	A5	2747	G	C6-N1	-6.50	1.35	1.39
69	A5	1109	G	C5-C6	-6.50	1.35	1.42
69	A5	2755	G	C5-C6	-6.50	1.35	1.42
69	A5	3268	A	N9-C4	-6.49	1.33	1.37
69	A5	1026	G	C6-N1	-6.49	1.35	1.39
69	A5	1597	A	N3-C4	-6.49	1.30	1.34
69	A5	987	G	C8-N7	-6.48	1.27	1.30
40	A8	55	G	C5-C4	-6.48	1.33	1.38
69	A5	376	G	C2-N3	-6.48	1.27	1.32
69	A5	515	A	N9-C4	-6.48	1.33	1.37
24	Ce	7	TYR	CD2-CE2	-6.48	1.29	1.39
69	A5	3488	G	C8-N7	-6.47	1.27	1.30
69	A5	864	G	C8-N7	-6.47	1.27	1.30
69	A5	995	G	C5-C4	-6.47	1.33	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1360	U	C2-N3	-6.47	1.33	1.37
69	A5	1383	A	O3'-P	6.47	1.69	1.61
69	A5	2730	A	C6-N1	-6.47	1.31	1.35
69	A5	1675	G	N9-C8	-6.47	1.33	1.37
69	A5	1375	G	C5-C4	-6.46	1.33	1.38
69	A5	846	U	C4-O4	-6.46	1.18	1.23
69	A5	1691	A	C6-N6	-6.46	1.28	1.33
69	A5	2759	G	C8-N7	-6.46	1.27	1.30
69	A5	927	A	N9-C4	6.46	1.41	1.37
69	A5	978	G	C5-C4	-6.46	1.33	1.38
69	A5	1026	G	N7-C5	-6.46	1.35	1.39
69	A5	3504	G	N7-C5	-6.46	1.35	1.39
69	A5	360	A	N7-C5	-6.45	1.35	1.39
69	A5	805	C	C2-N3	-6.45	1.30	1.35
69	A5	991	A	N7-C5	-6.45	1.35	1.39
69	A5	785	A	N9-C4	-6.45	1.33	1.37
69	A5	1000	G	C2-N3	-6.45	1.27	1.32
69	A5	443	G	N9-C4	-6.45	1.32	1.38
69	A5	825	C	N3-C4	-6.44	1.29	1.33
69	A5	2750	A	C5-C4	-6.44	1.34	1.38
69	A5	986	A	N3-C4	-6.44	1.30	1.34
69	A5	1205	U	C2-N3	-6.44	1.33	1.37
69	A5	1726	G	N7-C5	-6.43	1.35	1.39
69	A5	986	A	C5-C4	-6.43	1.34	1.38
69	A5	1675	G	C8-N7	-6.43	1.27	1.30
69	A5	1120	A	C5-C4	-6.43	1.34	1.38
69	A5	359	G	N7-C5	-6.42	1.35	1.39
69	A5	1060	G	C8-N7	-6.42	1.27	1.30
69	A5	3518	A	C5-C4	-6.42	1.34	1.38
69	A5	2517	A	N9-C4	-6.42	1.33	1.37
69	A5	3410	G	C5-C4	-6.42	1.33	1.38
69	A5	1616	G	C2-N3	-6.42	1.27	1.32
69	A5	1104	A	C5-C4	-6.41	1.34	1.38
69	A5	808	G	N9-C8	-6.41	1.33	1.37
69	A5	1753	G	C8-N7	-6.41	1.27	1.30
69	A5	1106	A	N3-C4	-6.40	1.31	1.34
69	A5	1107	G	C8-N7	-6.40	1.27	1.30
69	A5	561	A	N9-C4	-6.40	1.34	1.37
69	A5	809	G	C2-N3	-6.40	1.27	1.32
69	A5	910	C	C2-N3	-6.40	1.30	1.35
69	A5	1001	A	C6-N1	-6.40	1.31	1.35
40	A8	32	G	N9-C8	-6.40	1.33	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1026	G	N1-C2	-6.40	1.32	1.37
39	A7	67	G	N9-C4	-6.40	1.32	1.38
69	A5	2742	G	N7-C5	-6.39	1.35	1.39
69	A5	1172	G	C5-C4	-6.39	1.33	1.38
69	A5	1731	G	C5-C4	-6.39	1.33	1.38
69	A5	2750	A	N7-C5	-6.39	1.35	1.39
69	A5	3492	G	C8-N7	-6.38	1.27	1.30
69	A5	46	C	N1-C6	-6.37	1.33	1.37
69	A5	3513	A	N7-C5	-6.37	1.35	1.39
69	A5	815	A	N3-C4	-6.37	1.31	1.34
69	A5	802	G	N7-C5	-6.36	1.35	1.39
69	A5	2785	C	N3-C4	-6.36	1.29	1.33
69	A5	1029	C	N3-C4	-6.36	1.29	1.33
69	A5	1620	A	N9-C8	-6.36	1.32	1.37
69	A5	1691	A	C5-C4	-6.35	1.34	1.38
69	A5	1329	G	C2-N3	-6.35	1.27	1.32
69	A5	1679	U	C4-C5	-6.35	1.37	1.43
69	A5	990	U	C2-N3	-6.35	1.33	1.37
69	A5	1082	A	N9-C8	-6.35	1.32	1.37
69	A5	920	G	N9-C8	-6.34	1.33	1.37
69	A5	2733	G	N1-C2	-6.34	1.32	1.37
69	A5	3259	A	C6-N1	-6.34	1.31	1.35
40	A8	100	G	N9-C4	-6.34	1.32	1.38
69	A5	366	A	N9-C8	-6.34	1.32	1.37
69	A5	746	G	N9-C4	6.34	1.43	1.38
69	A5	1372	A	C5-C4	-6.33	1.34	1.38
69	A5	3508	G	N7-C5	-6.33	1.35	1.39
69	A5	95	G	N7-C5	-6.33	1.35	1.39
69	A5	348	A	N3-C4	-6.33	1.31	1.34
69	A5	2510	A	N7-C5	-6.33	1.35	1.39
69	A5	815	A	N9-C4	-6.33	1.34	1.37
69	A5	2091	A	C5-C6	-6.33	1.35	1.41
69	A5	1172	G	C2-N3	-6.32	1.27	1.32
69	A5	3476	G	C8-N7	-6.32	1.27	1.30
69	A5	1140	G	N1-C2	-6.32	1.32	1.37
69	A5	2517	A	N7-C5	-6.32	1.35	1.39
69	A5	1611	G	C5-C4	-6.32	1.33	1.38
69	A5	3519	C	C2-N3	-6.31	1.30	1.35
69	A5	2760	G	N7-C5	-6.31	1.35	1.39
69	A5	816	A	C5-C4	-6.31	1.34	1.38
69	A5	1736	G	C2-N3	-6.31	1.27	1.32
69	A5	3337	G	C8-N7	-6.31	1.27	1.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	373	A	C8-N7	-6.31	1.27	1.31
69	A5	3235	A	N7-C5	-6.31	1.35	1.39
69	A5	1109	G	N7-C5	-6.30	1.35	1.39
69	A5	2741	A	C8-N7	-6.30	1.27	1.31
69	A5	1526	G	C8-N7	-6.30	1.27	1.30
69	A5	1020	A	C6-N1	-6.30	1.31	1.35
69	A5	1612	G	N1-C2	-6.29	1.32	1.37
69	A5	2735	A	N7-C5	-6.29	1.35	1.39
69	A5	3478	G	C2-N3	-6.29	1.27	1.32
69	A5	2777	A	C5-C4	-6.29	1.34	1.38
69	A5	3585	A	N3-C4	-6.29	1.31	1.34
69	A5	3256	U	C2-N3	-6.28	1.33	1.37
69	A5	3478	G	N7-C5	-6.28	1.35	1.39
69	A5	2168	G	C5-C4	-6.28	1.33	1.38
69	A5	1624	G	C6-N1	-6.28	1.35	1.39
69	A5	1013	G	N1-C2	-6.28	1.32	1.37
69	A5	1361	G	C8-N7	-6.27	1.27	1.30
39	A7	67	G	N3-C4	-6.27	1.31	1.35
69	A5	1377	A	N7-C5	-6.27	1.35	1.39
69	A5	2716	C	N3-C4	-6.27	1.29	1.33
69	A5	1981	A	C6-N1	-6.27	1.31	1.35
69	A5	345	A	C5-C4	-6.27	1.34	1.38
69	A5	2176	G	C6-N1	-6.27	1.35	1.39
69	A5	2723	A	C5-C4	-6.27	1.34	1.38
69	A5	2747	G	N9-C8	-6.27	1.33	1.37
69	A5	322	G	N7-C5	-6.27	1.35	1.39
69	A5	381	G	C8-N7	-6.27	1.27	1.30
69	A5	2741	A	C6-N1	-6.27	1.31	1.35
69	A5	100	G	N1-C2	-6.26	1.32	1.37
69	A5	2664	U	C2-N3	-6.26	1.33	1.37
69	A5	348	A	N9-C4	-6.26	1.34	1.37
69	A5	1115	A	N3-C4	-6.26	1.31	1.34
69	A5	1327	G	C2-N3	-6.26	1.27	1.32
40	A8	31	G	C2-N3	-6.26	1.27	1.32
69	A5	442	A	C5-C4	-6.26	1.34	1.38
69	A5	3539	C	N3-C4	-6.26	1.29	1.33
69	A5	817	C	C4-C5	-6.26	1.38	1.43
69	A5	1313	A	C6-N1	-6.26	1.31	1.35
69	A5	1738	U	C2-O2	-6.25	1.16	1.22
69	A5	2068	A	N9-C4	-6.24	1.34	1.37
69	A5	1779	G	C5-C4	-6.24	1.33	1.38
69	A5	789	G	N1-C2	-6.24	1.32	1.37

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2209	G	C6-N1	-6.24	1.35	1.39
69	A5	2502	G	C8-N7	-6.24	1.27	1.30
69	A5	15	A	N7-C5	-6.24	1.35	1.39
69	A5	1019	U	N3-C4	-6.23	1.32	1.38
69	A5	1343	A	C5-C4	-6.23	1.34	1.38
69	A5	52	A	C8-N7	-6.23	1.27	1.31
40	A8	23	G	C6-N1	-6.23	1.35	1.39
69	A5	1325	C	N3-C4	-6.23	1.29	1.33
69	A5	3251	C	N3-C4	-6.23	1.29	1.33
69	A5	1606	G	C6-N1	-6.23	1.35	1.39
69	A5	808	G	N1-C2	-6.23	1.32	1.37
69	A5	2741	A	N9-C4	-6.23	1.34	1.37
40	A8	13	U	C2-N3	-6.22	1.33	1.37
39	A7	84	U	C2-N3	-6.22	1.33	1.37
69	A5	794	G	C8-N7	-6.22	1.27	1.30
69	A5	1142	U	C5-C6	-6.21	1.28	1.34
69	A5	3346	G	N1-C2	-6.21	1.32	1.37
69	A5	1076	A	N9-C4	-6.21	1.34	1.37
69	A5	2791	A	N7-C5	-6.21	1.35	1.39
39	A7	83	A	N9-C4	-6.21	1.34	1.37
69	A5	2207	A	C6-N6	-6.21	1.28	1.33
69	A5	358	C	C4-C5	-6.21	1.38	1.43
69	A5	986	A	N9-C8	-6.21	1.32	1.37
69	A5	1866	G	C6-O6	-6.21	1.18	1.24
69	A5	3477	A	C5-C4	-6.21	1.34	1.38
69	A5	2510	A	N9-C4	-6.20	1.34	1.37
69	A5	3259	A	C8-N7	-6.20	1.27	1.31
69	A5	61	A	N7-C5	-6.20	1.35	1.39
69	A5	1111	C	N1-C6	-6.20	1.33	1.37
69	A5	1624	G	C5-C4	-6.20	1.34	1.38
69	A5	822	G	N1-C2	-6.20	1.32	1.37
69	A5	1733	A	C8-N7	-6.20	1.27	1.31
69	A5	3516	C	C2-N3	-6.20	1.30	1.35
69	A5	1174	G	C5-C4	-6.19	1.34	1.38
69	A5	2514	U	C2-N3	-6.19	1.33	1.37
69	A5	1874	G	N1-C2	-6.19	1.32	1.37
69	A5	821	U	C2-N3	-6.18	1.33	1.37
69	A5	1154	U	C2-N3	-6.18	1.33	1.37
69	A5	1346	C	N3-C4	-6.18	1.29	1.33
69	A5	1076	A	C5-C4	-6.18	1.34	1.38
69	A5	789	G	C2-N3	-6.18	1.27	1.32
69	A5	63	G	N1-C2	-6.18	1.32	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2780	A	C5-C4	-6.18	1.34	1.38
69	A5	1629	C	N3-C4	-6.18	1.29	1.33
69	A5	1889	A	N7-C5	-6.18	1.35	1.39
69	A5	1692	G	N1-C2	-6.17	1.32	1.37
69	A5	1347	A	C5-C4	-6.17	1.34	1.38
69	A5	2175	A	N9-C4	-6.17	1.34	1.37
69	A5	1087	G	C5-C4	-6.17	1.34	1.38
69	A5	1676	A	N9-C8	-6.17	1.32	1.37
69	A5	95	G	N1-C2	-6.17	1.32	1.37
69	A5	1733	A	C6-N1	-6.17	1.31	1.35
69	A5	3409	G	C6-N1	-6.17	1.35	1.39
69	A5	1002	C	N3-C4	-6.17	1.29	1.33
21	CB	323	TYR	CB-CG	6.17	1.60	1.51
40	A8	20	C	N3-C4	-6.17	1.29	1.33
69	A5	300	A	N7-C5	-6.17	1.35	1.39
69	A5	1412	A	N3-C4	-6.17	1.31	1.34
39	A7	108	G	C2-N3	-6.16	1.27	1.32
69	A5	368	C	N3-C4	-6.16	1.29	1.33
69	A5	819	U	C2-N3	-6.16	1.33	1.37
69	A5	1674	A	N9-C4	-6.16	1.34	1.37
69	A5	382	G	N9-C8	-6.16	1.33	1.37
69	A5	1274	A	C5-C4	-6.15	1.34	1.38
69	A5	1360	U	N3-C4	-6.15	1.32	1.38
69	A5	1392	A	N9-C4	-6.15	1.34	1.37
69	A5	2207	A	C6-N1	-6.15	1.31	1.35
69	A5	2565	G	C8-N7	-6.15	1.27	1.30
69	A5	379	A	N9-C4	-6.15	1.34	1.37
69	A5	307	A	N7-C5	-6.15	1.35	1.39
69	A5	1117	A	N1-C2	-6.15	1.28	1.34
69	A5	2188	C	C5-C6	-6.15	1.29	1.34
69	A5	1107	G	N1-C2	-6.14	1.32	1.37
69	A5	1012	G	N7-C5	-6.14	1.35	1.39
69	A5	1318	A	N3-C4	-6.14	1.31	1.34
69	A5	1723	G	C6-N1	-6.14	1.35	1.39
69	A5	2509	G	N1-C2	-6.14	1.32	1.37
69	A5	828	G	C8-N7	-6.14	1.27	1.30
69	A5	910	C	C4-N4	-6.14	1.28	1.33
69	A5	1624	G	C2-N3	-6.14	1.27	1.32
69	A5	3399	C	C4-C5	-6.14	1.38	1.43
69	A5	1353	G	C6-N1	-6.13	1.35	1.39
40	A8	24	G	C6-N1	-6.13	1.35	1.39
69	A5	383	A	N9-C4	-6.13	1.34	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1330	G	N7-C5	-6.13	1.35	1.39
69	A5	3165	U	C2-N3	-6.13	1.33	1.37
69	A5	2158	U	N1-C2	-6.13	1.33	1.38
69	A5	1752	G	C5-C4	-6.13	1.34	1.38
40	A8	102	A	N9-C4	-6.13	1.34	1.37
69	A5	3516	C	C2-O2	-6.12	1.19	1.24
69	A5	2730	A	C8-N7	-6.12	1.27	1.31
69	A5	1031	G	C8-N7	-6.12	1.27	1.30
69	A5	1081	C	N3-C4	-6.12	1.29	1.33
69	A5	1022	A	C8-N7	-6.12	1.27	1.31
69	A5	1325	C	C2-N3	-6.11	1.30	1.35
69	A5	1665	C	N3-C4	-6.11	1.29	1.33
69	A5	379	A	C5-C6	-6.11	1.35	1.41
69	A5	382	G	N1-C2	-6.11	1.32	1.37
69	A5	371	G	C8-N7	-6.10	1.27	1.30
69	A5	1604	G	N7-C5	-6.10	1.35	1.39
69	A5	3149	U	C2-N3	-6.10	1.33	1.37
69	A5	93	G	N7-C5	-6.10	1.35	1.39
69	A5	1312	G	N1-C2	-6.10	1.32	1.37
69	A5	1779	G	C2-N3	-6.10	1.27	1.32
69	A5	2151	A	C8-N7	-6.10	1.27	1.31
69	A5	1595	G	N3-C4	-6.10	1.31	1.35
69	A5	1002	C	C4-C5	-6.09	1.38	1.43
69	A5	1319	A	C5-C6	-6.09	1.35	1.41
69	A5	1784	A	N9-C4	-6.09	1.34	1.37
69	A5	3540	G	C8-N7	-6.09	1.27	1.30
69	A5	543	A	C5-C6	-6.09	1.35	1.41
69	A5	359	G	N3-C4	-6.09	1.31	1.35
69	A5	1686	A	N3-C4	-6.08	1.31	1.34
69	A5	1752	G	N1-C2	-6.08	1.32	1.37
39	A7	95	U	C2-N3	-6.08	1.33	1.37
69	A5	1098	U	C4-O4	-6.08	1.18	1.23
69	A5	818	A	C5-C6	-6.08	1.35	1.41
69	A5	1122	U	N3-C4	-6.08	1.32	1.38
69	A5	3167	A	N9-C4	-6.08	1.34	1.37
29	CC	114	TRP	CE3-CZ3	-6.07	1.28	1.38
69	A5	1005	G	C8-N7	-6.07	1.27	1.30
69	A5	1682	G	C5-C6	-6.07	1.36	1.42
69	A5	105	A	C5-C6	-6.07	1.35	1.41
69	A5	1682	G	N3-C4	-6.07	1.31	1.35
69	A5	1385	G	C2-N3	-6.07	1.27	1.32
69	A5	910	C	C4-C5	-6.06	1.38	1.43

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	59	G	N9-C8	-6.06	1.33	1.37
69	A5	832	U	N1-C6	-6.06	1.32	1.38
69	A5	2191	G	C5-C4	-6.06	1.34	1.38
69	A5	2516	U	C2-N3	-6.06	1.33	1.37
69	A5	1163	G	N1-C2	-6.05	1.32	1.37
69	A5	2792	G	C5-C4	-6.05	1.34	1.38
69	A5	3495	G	C5-C4	-6.05	1.34	1.38
69	A5	3620	G	C5-C4	-6.05	1.34	1.38
69	A5	367	A	N9-C4	-6.05	1.34	1.37
69	A5	203	A	N9-C4	-6.05	1.34	1.37
69	A5	1108	G	N7-C5	-6.05	1.35	1.39
69	A5	2181	A	C5-C4	-6.05	1.34	1.38
69	A5	3674	G	C5-C4	-6.04	1.34	1.38
39	A7	81	A	N3-C4	-6.04	1.31	1.34
40	A8	42	A	C5-C4	-6.04	1.34	1.38
69	A5	1010	A	C5-C4	-6.04	1.34	1.38
69	A5	3881	A	C6-N1	-6.04	1.31	1.35
69	A5	105	A	N3-C4	-6.04	1.31	1.34
69	A5	1164	G	C8-N7	-6.04	1.27	1.30
69	A5	2222	G	C6-N1	-6.04	1.35	1.39
69	A5	2524	A	C8-N7	-6.04	1.27	1.31
69	A5	299	G	C5-C4	-6.04	1.34	1.38
69	A5	1171	G	C2-N3	-6.04	1.27	1.32
69	A5	1548	C	N3-C4	-6.04	1.29	1.33
69	A5	98	G	N1-C2	-6.03	1.32	1.37
69	A5	788	C	C5-C6	-6.03	1.29	1.34
69	A5	2160	C	C2-N3	-6.03	1.30	1.35
69	A5	2682	C	N3-C4	-6.03	1.29	1.33
69	A5	2062	A	N9-C4	-6.03	1.34	1.37
69	A5	2211	A	N9-C4	-6.03	1.34	1.37
69	A5	2748	G	C5-C4	-6.03	1.34	1.38
69	A5	549	A	N9-C4	-6.02	1.34	1.37
69	A5	2743	C	C4-C5	-6.02	1.38	1.43
69	A5	37	G	C8-N7	-6.02	1.27	1.30
69	A5	356	A	C5-C4	-6.02	1.34	1.38
40	A8	102	A	C6-N1	-6.02	1.31	1.35
69	A5	1176	A	N1-C2	-6.02	1.28	1.34
69	A5	30	A	N9-C8	-6.02	1.32	1.37
69	A5	1059	A	N3-C4	-6.02	1.31	1.34
69	A5	427	A	C5-C4	-6.01	1.34	1.38
69	A5	358	C	N3-C4	-6.01	1.29	1.33
69	A5	2746	A	C6-N1	-6.01	1.31	1.35

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	348	A	C5-C4	-6.01	1.34	1.38
69	A5	1008	A	C6-N1	-6.00	1.31	1.35
69	A5	1327	G	N9-C8	-6.00	1.33	1.37
69	A5	231	A	N9-C4	-6.00	1.34	1.37
69	A5	2744	C	N3-C4	-6.00	1.29	1.33
69	A5	2798	C	N3-C4	-6.00	1.29	1.33
69	A5	371	G	C5-C6	-6.00	1.36	1.42
69	A5	996	C	N3-C4	-6.00	1.29	1.33
69	A5	1196	A	N7-C5	-6.00	1.35	1.39
69	A5	2671	C	N3-C4	-6.00	1.29	1.33
69	A5	447	G	N1-C2	-5.99	1.32	1.37
69	A5	792	U	C2-N3	-5.99	1.33	1.37
69	A5	99	A	C5-C4	-5.99	1.34	1.38
69	A5	543	A	N9-C4	-5.99	1.34	1.37
69	A5	2161	G	C5-C4	-5.99	1.34	1.38
69	A5	793	U	C2-N3	-5.99	1.33	1.37
69	A5	1908	A	N9-C4	5.99	1.41	1.37
69	A5	2232	U	C2-N3	-5.99	1.33	1.37
69	A5	3337	G	N9-C8	-5.99	1.33	1.37
69	A5	1377	A	C5-C4	-5.99	1.34	1.38
69	A5	2735	A	N9-C4	-5.98	1.34	1.37
69	A5	796	A	N9-C4	-5.98	1.34	1.37
69	A5	1312	G	C6-N1	-5.98	1.35	1.39
69	A5	1131	C	N3-C4	-5.98	1.29	1.33
69	A5	30	A	N7-C5	-5.97	1.35	1.39
69	A5	2513	G	C6-N1	-5.97	1.35	1.39
40	A8	12	G	C8-N7	-5.97	1.27	1.30
69	A5	1410	A	C8-N7	-5.97	1.27	1.31
69	A5	2162	C	C4-C5	-5.97	1.38	1.43
69	A5	214	A	N9-C4	-5.97	1.34	1.37
69	A5	345	A	N7-C5	-5.97	1.35	1.39
69	A5	2741	A	N9-C8	-5.97	1.32	1.37
69	A5	843	A	N9-C4	-5.96	1.34	1.37
69	A5	1734	G	N7-C5	-5.96	1.35	1.39
69	A5	1118	C	C2-N3	-5.96	1.30	1.35
69	A5	3489	A	N9-C4	-5.96	1.34	1.37
69	A5	36	U	C2-N3	-5.96	1.33	1.37
69	A5	1328	U	C2-N3	-5.96	1.33	1.37
69	A5	985	G	C2-N3	-5.96	1.27	1.32
69	A5	367	A	N7-C5	-5.95	1.35	1.39
69	A5	1153	G	N1-C2	-5.95	1.32	1.37
69	A5	371	G	N7-C5	-5.95	1.35	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	809	G	C5-C6	-5.95	1.36	1.42
69	A5	1873	A	C6-N6	-5.95	1.29	1.33
69	A5	2181	A	N7-C5	-5.95	1.35	1.39
69	A5	2718	U	N3-C4	-5.94	1.33	1.38
69	A5	546	G	C8-N7	-5.94	1.27	1.30
69	A5	1014	U	C2-N3	-5.94	1.33	1.37
69	A5	102	G	N9-C8	-5.94	1.33	1.37
69	A5	2711	C	N3-C4	-5.94	1.29	1.33
69	A5	1733	A	C5-C4	-5.94	1.34	1.38
69	A5	1730	A	C5-C4	-5.93	1.34	1.38
69	A5	794	G	C5-C4	-5.93	1.34	1.38
69	A5	1358	U	C2-N3	-5.93	1.33	1.37
69	A5	1799	U	C2-N3	-5.93	1.33	1.37
69	A5	2194	G	N7-C5	-5.93	1.35	1.39
69	A5	31	C	N3-C4	-5.93	1.29	1.33
69	A5	754	A	C5-C6	-5.93	1.35	1.41
69	A5	1326	A	C8-N7	-5.93	1.27	1.31
69	A5	3602	U	C2-N3	-5.93	1.33	1.37
40	A8	40	A	N9-C4	-5.92	1.34	1.37
69	A5	802	G	C6-N1	-5.92	1.35	1.39
69	A5	1152	A	C6-N1	-5.92	1.31	1.35
69	A5	381	G	N9-C8	-5.92	1.33	1.37
69	A5	786	C	N3-C4	-5.92	1.29	1.33
69	A5	1152	A	C8-N7	-5.92	1.27	1.31
69	A5	379	A	C2-N3	-5.92	1.28	1.33
69	A5	1069	A	C5-C4	-5.92	1.34	1.38
69	A5	1331	G	C5-C4	-5.92	1.34	1.38
69	A5	1363	G	N9-C8	-5.92	1.33	1.37
69	A5	3673	G	C8-N7	-5.92	1.27	1.30
69	A5	58	G	C2-N3	-5.92	1.28	1.32
69	A5	1144	C	C5-C6	-5.92	1.29	1.34
69	A5	376	G	C5-C4	-5.91	1.34	1.38
69	A5	1685	G	N1-C2	-5.91	1.33	1.37
69	A5	3403	G	C5-C4	-5.91	1.34	1.38
69	A5	1102	G	C8-N7	-5.91	1.27	1.30
69	A5	1152	A	C5-C4	-5.91	1.34	1.38
69	A5	2199	A	C6-N1	-5.91	1.31	1.35
69	A5	1872	A	N7-C5	-5.91	1.35	1.39
69	A5	389	G	C6-N1	-5.91	1.35	1.39
69	A5	1367	A	N9-C4	-5.91	1.34	1.37
69	A5	1117	A	N7-C5	-5.90	1.35	1.39
69	A5	2748	G	C8-N7	-5.90	1.27	1.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	443	G	C5-C4	-5.90	1.34	1.38
69	A5	1414	C	N3-C4	-5.90	1.29	1.33
69	A5	2750	A	N9-C4	-5.90	1.34	1.37
69	A5	1752	G	N3-C4	-5.90	1.31	1.35
69	A5	2243	G	C6-N1	-5.90	1.35	1.39
69	A5	2543	C	N3-C4	-5.90	1.29	1.33
69	A5	821	U	C4-C5	-5.90	1.38	1.43
69	A5	1028	U	C2-N3	-5.90	1.33	1.37
69	A5	3168	A	N7-C5	-5.90	1.35	1.39
69	A5	1749	A	C6-N1	-5.90	1.31	1.35
69	A5	376	G	N9-C8	-5.89	1.33	1.37
69	A5	2091	A	N7-C5	-5.89	1.35	1.39
69	A5	1555	G	N9-C8	-5.89	1.33	1.37
69	A5	1168	G	C5-C4	-5.89	1.34	1.38
69	A5	2724	C	C4-C5	-5.89	1.38	1.43
69	A5	1799	U	N1-C6	-5.88	1.32	1.38
69	A5	92	A	C5-C6	-5.88	1.35	1.41
69	A5	1709	A	N9-C4	-5.88	1.34	1.37
69	A5	2731	G	C8-N7	-5.88	1.27	1.30
69	A5	485	A	N9-C4	-5.88	1.34	1.37
69	A5	1372	A	N9-C8	-5.88	1.33	1.37
69	A5	2736	A	N9-C4	-5.88	1.34	1.37
69	A5	2521	A	N7-C5	-5.87	1.35	1.39
69	A5	845	C	N3-C4	-5.87	1.29	1.33
69	A5	2215	G	N9-C4	-5.87	1.33	1.38
69	A5	2737	C	N3-C4	-5.87	1.29	1.33
69	A5	1115	A	N7-C5	-5.87	1.35	1.39
69	A5	2767	U	C2-N3	-5.87	1.33	1.37
69	A5	809	G	N7-C5	-5.86	1.35	1.39
69	A5	1685	G	C8-N7	-5.86	1.27	1.30
69	A5	3269	G	C8-N7	-5.86	1.27	1.30
69	A5	650	A	N9-C4	-5.86	1.34	1.37
69	A5	2747	G	C8-N7	-5.86	1.27	1.30
69	A5	1117	A	C8-N7	-5.86	1.27	1.31
69	A5	1682	G	C2-N3	-5.86	1.28	1.32
69	A5	427	A	N9-C8	-5.86	1.33	1.37
69	A5	2255	G	C8-N7	-5.85	1.27	1.30
69	A5	1330	G	C5-C4	-5.85	1.34	1.38
69	A5	1197	A	N1-C2	-5.85	1.29	1.34
69	A5	1875	G	C5-C4	-5.85	1.34	1.38
69	A5	2678	G	C5-C4	-5.85	1.34	1.38
69	A5	3348	G	C8-N7	-5.85	1.27	1.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	417	A	C5-C4	-5.85	1.34	1.38
69	A5	795	A	C8-N7	-5.85	1.27	1.31
69	A5	1110	G	N9-C8	-5.85	1.33	1.37
69	A5	1630	G	N7-C5	-5.85	1.35	1.39
69	A5	2708	C	N3-C4	-5.85	1.29	1.33
69	A5	786	C	N1-C6	-5.84	1.33	1.37
69	A5	1696	A	C5-C6	-5.84	1.35	1.41
69	A5	2211	A	C5-C4	-5.84	1.34	1.38
69	A5	982	C	N3-C4	-5.84	1.29	1.33
69	A5	359	G	N9-C4	-5.84	1.33	1.38
69	A5	1030	A	N7-C5	-5.84	1.35	1.39
69	A5	1144	C	C4-C5	-5.84	1.38	1.43
69	A5	2195	A	C6-N1	-5.84	1.31	1.35
18	Cr	9	TRP	CB-CG	-5.84	1.39	1.50
69	A5	1319	A	N7-C5	-5.84	1.35	1.39
69	A5	3518	A	C6-N1	-5.83	1.31	1.35
69	A5	794	G	C6-N1	-5.83	1.35	1.39
69	A5	1612	G	C8-N7	-5.83	1.27	1.30
69	A5	3331	A	N7-C5	-5.83	1.35	1.39
69	A5	1623	G	N7-C5	-5.83	1.35	1.39
69	A5	3140	G	N9-C8	-5.83	1.33	1.37
69	A5	1151	A	C6-N1	-5.83	1.31	1.35
69	A5	1165	A	N9-C8	-5.83	1.33	1.37
69	A5	1731	G	C2-N3	-5.83	1.28	1.32
69	A5	2221	G	C8-N7	-5.82	1.27	1.30
69	A5	2534	G	C2-N3	-5.82	1.28	1.32
69	A5	3346	G	C5-C4	-5.82	1.34	1.38
69	A5	31	C	N1-C6	-5.82	1.33	1.37
69	A5	90	G	C5-C4	-5.82	1.34	1.38
69	A5	991	A	C5-C4	-5.82	1.34	1.38
69	A5	1527	C	N3-C4	-5.82	1.29	1.33
69	A5	1784	A	C6-N1	-5.82	1.31	1.35
69	A5	1613	A	C5-C4	-5.82	1.34	1.38
39	A7	84	U	N3-C4	-5.82	1.33	1.38
69	A5	26	G	N1-C2	-5.82	1.33	1.37
69	A5	81	A	N7-C5	-5.82	1.35	1.39
69	A5	816	A	N3-C4	-5.81	1.31	1.34
69	A5	1331	G	C2-N3	-5.81	1.28	1.32
69	A5	1638	G	C2-N3	-5.81	1.28	1.32
69	A5	1165	A	N1-C2	-5.81	1.29	1.34
69	A5	391	A	N9-C4	-5.81	1.34	1.37
69	A5	308	G	C5-C4	-5.81	1.34	1.38

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	868	A	N9-C4	5.81	1.41	1.37
69	A5	3142	G	C6-N1	-5.81	1.35	1.39
69	A5	1678	C	N3-C4	-5.80	1.29	1.33
69	A5	1163	G	N9-C8	-5.80	1.33	1.37
69	A5	819	U	N1-C6	-5.80	1.32	1.38
69	A5	3236	A	N9-C4	-5.80	1.34	1.37
69	A5	1793	C	C4-C5	-5.80	1.38	1.43
69	A5	3409	G	C8-N7	-5.80	1.27	1.30
69	A5	371	G	C5-C4	-5.80	1.34	1.38
69	A5	385	A	N3-C4	-5.79	1.31	1.34
69	A5	815	A	C5-C4	-5.79	1.34	1.38
69	A5	2203	A	C8-N7	-5.79	1.27	1.31
69	A5	2229	A	N3-C4	-5.79	1.31	1.34
69	A5	1314	U	C2-N3	-5.79	1.33	1.37
69	A5	663	U	C2-N3	-5.79	1.33	1.37
69	A5	1087	G	C8-N7	-5.79	1.27	1.30
69	A5	1176	A	N7-C5	-5.79	1.35	1.39
69	A5	2176	G	N1-C2	-5.79	1.33	1.37
69	A5	3620	G	C8-N7	-5.79	1.27	1.30
69	A5	352	U	N3-C4	-5.79	1.33	1.38
69	A5	1138	C	N3-C4	-5.79	1.29	1.33
69	A5	1623	G	C5-C6	-5.79	1.36	1.42
69	A5	1702	G	N9-C4	-5.79	1.33	1.38
69	A5	2038	A	N7-C5	-5.78	1.35	1.39
69	A5	2221	G	C5-C4	-5.78	1.34	1.38
69	A5	3625	U	C2-N3	-5.78	1.33	1.37
69	A5	98	G	N7-C5	-5.78	1.35	1.39
69	A5	911	A	N9-C4	-5.78	1.34	1.37
69	A5	1329	G	C8-N7	-5.78	1.27	1.30
69	A5	1333	C	C4-C5	-5.78	1.38	1.43
69	A5	427	A	N9-C4	-5.78	1.34	1.37
69	A5	62	G	C5-C4	-5.77	1.34	1.38
69	A5	1563	A	N9-C4	5.77	1.41	1.37
69	A5	2746	A	N9-C8	-5.77	1.33	1.37
69	A5	3511	U	N3-C4	-5.77	1.33	1.38
69	A5	2513	G	C8-N7	-5.77	1.27	1.30
69	A5	2755	G	N7-C5	-5.77	1.35	1.39
40	A8	11	G	C6-N1	-5.77	1.35	1.39
69	A5	1651	C	N3-C4	-5.77	1.29	1.33
69	A5	1799	U	C4-O4	-5.77	1.19	1.23
69	A5	2733	G	N7-C5	-5.77	1.35	1.39
69	A5	3499	G	N1-C2	-5.77	1.33	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	A8	43	A	N9-C4	-5.77	1.34	1.37
69	A5	2683	G	C8-N7	-5.76	1.27	1.30
69	A5	2768	A	C5-C4	-5.76	1.34	1.38
69	A5	357	C	C4-C5	-5.76	1.38	1.43
69	A5	424	G	N1-C2	-5.76	1.33	1.37
69	A5	822	G	C6-N1	-5.76	1.35	1.39
69	A5	832	U	C5-C6	-5.76	1.28	1.34
69	A5	3293	G	N7-C5	-5.76	1.35	1.39
69	A5	1088	A	C6-N1	-5.76	1.31	1.35
69	A5	2251	G	C2-N3	-5.76	1.28	1.32
69	A5	3613	G	N9-C4	-5.76	1.33	1.38
69	A5	30	A	C6-N1	-5.76	1.31	1.35
69	A5	3477	A	C2-N3	-5.76	1.28	1.33
69	A5	1670	G	C5-C4	-5.75	1.34	1.38
69	A5	1687	U	C2-O2	-5.75	1.17	1.22
69	A5	846	U	C2-N3	-5.75	1.33	1.37
40	A8	40	A	C8-N7	-5.75	1.27	1.31
69	A5	1172	G	C8-N7	-5.75	1.27	1.30
69	A5	1369	C	N1-C6	-5.75	1.33	1.37
69	A5	1134	G	C6-N1	-5.75	1.35	1.39
69	A5	1790	A	C5-C4	-5.75	1.34	1.38
69	A5	1074	U	C2-N3	-5.74	1.33	1.37
69	A5	1098	U	N3-C4	-5.74	1.33	1.38
69	A5	1867	A	C5-C4	-5.74	1.34	1.38
69	A5	1064	G	C6-N1	-5.74	1.35	1.39
69	A5	1009	G	C5-C4	-5.74	1.34	1.38
69	A5	2789	U	C2-N3	-5.74	1.33	1.37
69	A5	3348	G	C5-C4	-5.74	1.34	1.38
69	A5	785	A	C5-C4	-5.74	1.34	1.38
69	A5	1372	A	C8-N7	-5.74	1.27	1.31
69	A5	1543	C	N3-C4	-5.74	1.29	1.33
69	A5	1671	U	N3-C4	-5.74	1.33	1.38
69	A5	1098	U	C4-C5	-5.73	1.38	1.43
69	A5	2729	U	C2-N3	-5.73	1.33	1.37
39	A7	97	G	C5-C4	-5.73	1.34	1.38
69	A5	807	A	C2-N3	-5.73	1.28	1.33
69	A5	3882	C	N3-C4	-5.73	1.29	1.33
69	A5	864	G	N9-C8	-5.73	1.33	1.37
69	A5	443	G	N7-C5	-5.72	1.35	1.39
69	A5	1680	U	C4-C5	-5.72	1.38	1.43
69	A5	3193	C	N3-C4	-5.72	1.29	1.33
69	A5	1795	A	C8-N7	-5.72	1.27	1.31

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1388	C	N3-C4	-5.72	1.29	1.33
69	A5	1156	U	C2-N3	-5.72	1.33	1.37
69	A5	107	G	N9-C4	-5.72	1.33	1.38
69	A5	3404	A	C8-N7	-5.71	1.27	1.31
69	A5	3405	U	C2-N3	-5.71	1.33	1.37
69	A5	443	G	C8-N7	-5.71	1.27	1.30
69	A5	989	A	N7-C5	-5.71	1.35	1.39
69	A5	2755	G	N9-C4	-5.71	1.33	1.38
69	A5	809	G	N1-C2	-5.71	1.33	1.37
69	A5	1381	U	C2-N3	-5.71	1.33	1.37
69	A5	1409	G	C8-N7	-5.71	1.27	1.30
69	A5	1675	G	N3-C4	-5.71	1.31	1.35
69	A5	2153	C	N1-C6	-5.71	1.33	1.37
69	A5	2699	A	C6-N1	-5.71	1.31	1.35
69	A5	454	C	N3-C4	-5.70	1.29	1.33
69	A5	1771	G	N9-C8	-5.70	1.33	1.37
69	A5	2528	A	C5-C6	-5.70	1.35	1.41
69	A5	546	G	N7-C5	-5.70	1.35	1.39
69	A5	3678	G	N1-C2	-5.70	1.33	1.37
69	A5	353	G	C8-N7	-5.70	1.27	1.30
69	A5	1099	U	C2-N3	-5.70	1.33	1.37
69	A5	1102	G	C2-N3	-5.70	1.28	1.32
69	A5	1144	C	N3-C4	-5.70	1.29	1.33
69	A5	1369	C	N3-C4	-5.70	1.29	1.33
69	A5	1710	G	N7-C5	-5.70	1.35	1.39
69	A5	100	G	C5-C4	-5.69	1.34	1.38
69	A5	1019	U	C2-N3	-5.69	1.33	1.37
69	A5	1027	A	N7-C5	-5.69	1.35	1.39
69	A5	3350	U	C2-N3	-5.69	1.33	1.37
69	A5	1643	G	C8-N7	-5.69	1.27	1.30
69	A5	1791	A	N7-C5	-5.68	1.35	1.39
69	A5	1874	G	C6-N1	-5.68	1.35	1.39
69	A5	2187	U	C2-N3	-5.68	1.33	1.37
69	A5	2194	G	C5-C4	-5.68	1.34	1.38
69	A5	1343	A	N7-C5	-5.68	1.35	1.39
69	A5	1648	A	C8-N7	-5.68	1.27	1.31
69	A5	205	U	C2-N3	-5.68	1.33	1.37
69	A5	118	A	C5-C4	-5.67	1.34	1.38
69	A5	1738	U	N1-C6	-5.67	1.32	1.38
69	A5	3266	A	C6-N1	-5.67	1.31	1.35
69	A5	2155	A	C5-C6	-5.67	1.35	1.41
69	A5	3885	C	N3-C4	-5.67	1.29	1.33

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	Cf	152	LEU	C-N	-5.67	1.21	1.34
69	A5	3476	G	C5-C4	-5.67	1.34	1.38
69	A5	360	A	N9-C4	-5.67	1.34	1.37
69	A5	95	G	N9-C8	-5.67	1.33	1.37
69	A5	3269	G	C5-C6	-5.67	1.36	1.42
69	A5	1624	G	N1-C2	-5.66	1.33	1.37
69	A5	1002	C	C2-N3	-5.66	1.31	1.35
40	A8	42	A	N3-C4	-5.66	1.31	1.34
69	A5	800	C	C4-C5	-5.66	1.38	1.43
69	A5	102	G	C8-N7	-5.66	1.27	1.30
69	A5	458	A	N9-C4	5.66	1.41	1.37
69	A5	1014	U	N3-C4	-5.66	1.33	1.38
69	A5	2695	A	N9-C4	-5.66	1.34	1.37
40	A8	26	U	N3-C4	-5.65	1.33	1.38
69	A5	1183	U	N1-C6	5.65	1.43	1.38
40	A8	40	A	C5-C4	-5.65	1.34	1.38
69	A5	1523	A	N9-C4	-5.65	1.34	1.37
69	A5	1683	U	C2-N3	-5.65	1.33	1.37
69	A5	2528	A	C8-N7	-5.65	1.27	1.31
69	A5	244	G	C2-N3	-5.65	1.28	1.32
69	A5	1363	G	C6-N1	-5.65	1.35	1.39
69	A5	1383	A	C5-C6	-5.65	1.35	1.41
69	A5	1674	A	N9-C8	-5.65	1.33	1.37
69	A5	2525	C	N1-C6	-5.65	1.33	1.37
69	A5	395	A	N9-C4	-5.64	1.34	1.37
69	A5	1035	G	C5-C4	-5.64	1.34	1.38
69	A5	2207	A	N7-C5	-5.64	1.35	1.39
69	A5	2546	G	N1-C2	-5.64	1.33	1.37
69	A5	2776	A	C5-C6	-5.64	1.35	1.41
69	A5	790	U	C2-N3	-5.64	1.33	1.37
69	A5	62	G	N7-C5	-5.64	1.35	1.39
69	A5	362	A	C5-C4	-5.64	1.34	1.38
69	A5	1100	G	C8-N7	-5.64	1.27	1.30
69	A5	1797	A	C5-C4	-5.64	1.34	1.38
69	A5	2215	G	C8-N7	-5.64	1.27	1.30
69	A5	829	U	C2-N3	-5.64	1.33	1.37
69	A5	1111	C	N3-C4	-5.64	1.30	1.33
69	A5	1596	A	N9-C4	5.64	1.41	1.37
69	A5	2159	C	N3-C4	-5.64	1.30	1.33
69	A5	1150	G	N7-C5	-5.63	1.35	1.39
69	A5	1738	U	C2-N3	-5.63	1.33	1.37
69	A5	3346	G	C8-N7	-5.63	1.27	1.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	68	G	N9-C8	-5.63	1.33	1.37
69	A5	393	A	C5-C4	-5.63	1.34	1.38
69	A5	1031	G	C5-C6	-5.63	1.36	1.42
69	A5	1172	G	N7-C5	-5.63	1.35	1.39
69	A5	2209	G	N7-C5	-5.63	1.35	1.39
69	A5	811	G	C2-N3	-5.62	1.28	1.32
69	A5	851	G	C8-N7	-5.62	1.27	1.30
69	A5	2790	G	N1-C2	-5.62	1.33	1.37
69	A5	2066	G	C8-N7	-5.62	1.27	1.30
69	A5	382	G	C2-N3	-5.61	1.28	1.32
69	A5	790	U	N3-C4	-5.61	1.33	1.38
69	A5	2516	U	N3-C4	-5.61	1.33	1.38
69	A5	1123	C	N3-C4	-5.61	1.30	1.33
69	A5	2529	G	C8-N7	-5.61	1.27	1.30
69	A5	2560	A	N9-C4	-5.61	1.34	1.37
69	A5	2723	A	N7-C5	-5.61	1.35	1.39
69	A5	3413	C	C4-N4	-5.61	1.28	1.33
69	A5	3675	A	N7-C5	5.61	1.42	1.39
69	A5	1126	A	C5-C6	-5.61	1.36	1.41
69	A5	1163	G	C5-C4	-5.61	1.34	1.38
69	A5	1597	A	N9-C4	-5.61	1.34	1.37
69	A5	3428	A	N9-C4	-5.60	1.34	1.37
69	A5	3504	G	C5-C4	-5.60	1.34	1.38
39	A7	82	G	C5-C4	-5.60	1.34	1.38
69	A5	1352	U	C2-N3	-5.60	1.33	1.37
69	A5	1100	G	C5-C6	-5.60	1.36	1.42
69	A5	1670	G	C8-N7	-5.60	1.27	1.30
69	A5	3674	G	C8-N7	-5.60	1.27	1.30
69	A5	1102	G	C5-C4	-5.60	1.34	1.38
69	A5	1626	A	C8-N7	-5.60	1.27	1.31
69	A5	1145	C	N3-C4	-5.59	1.30	1.33
69	A5	2745	A	N9-C4	-5.59	1.34	1.37
40	A8	33	U	C2-N3	-5.59	1.33	1.37
69	A5	1141	G	C2-N3	-5.59	1.28	1.32
69	A5	1176	A	C6-N1	-5.59	1.31	1.35
69	A5	880	A	N9-C4	-5.59	1.34	1.37
69	A5	1020	A	N9-C4	-5.59	1.34	1.37
69	A5	1721	C	N3-C4	-5.59	1.30	1.33
69	A5	3260	G	C5-C4	-5.59	1.34	1.38
69	A5	1107	G	N9-C8	-5.59	1.33	1.37
69	A5	1313	A	N3-C4	-5.59	1.31	1.34
69	A5	1738	U	C5-C6	-5.59	1.29	1.34

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2524	A	C5-C4	-5.59	1.34	1.38
69	A5	1327	G	N9-C4	-5.58	1.33	1.38
69	A5	384	A	C5-C4	-5.58	1.34	1.38
69	A5	1013	G	C8-N7	-5.58	1.27	1.30
69	A5	2754	G	C6-N1	-5.58	1.35	1.39
69	A5	3260	G	N9-C4	-5.58	1.33	1.38
69	A5	783	G	N1-C2	-5.58	1.33	1.37
69	A5	1327	G	C6-N1	-5.58	1.35	1.39
69	A5	44	A	C5-C4	-5.58	1.34	1.38
69	A5	993	A	C6-N6	-5.58	1.29	1.33
69	A5	2769	G	C6-N1	-5.58	1.35	1.39
69	A5	3491	C	N3-C4	-5.58	1.30	1.33
69	A5	1153	G	N7-C5	-5.57	1.35	1.39
69	A5	1767	A	N9-C8	-5.57	1.33	1.37
69	A5	2167	G	C5-C4	-5.57	1.34	1.38
69	A5	3478	G	N1-C2	-5.57	1.33	1.37
69	A5	825	C	C4-C5	-5.57	1.38	1.43
69	A5	1056	G	C5-C4	-5.57	1.34	1.38
69	A5	2714	U	C4-C5	-5.57	1.38	1.43
69	A5	2776	A	C8-N7	-5.57	1.27	1.31
69	A5	442	A	N7-C5	-5.57	1.35	1.39
69	A5	1359	G	N7-C5	-5.57	1.35	1.39
69	A5	2719	A	C5-C4	-5.57	1.34	1.38
69	A5	3281	G	N9-C4	5.57	1.42	1.38
69	A5	1372	A	N7-C5	-5.57	1.35	1.39
69	A5	1020	A	C6-N6	-5.56	1.29	1.33
69	A5	1613	A	N9-C4	-5.56	1.34	1.37
69	A5	3174	A	N7-C5	-5.56	1.35	1.39
40	A8	15	G	C2-N3	-5.56	1.28	1.32
69	A5	1983	A	N9-C4	-5.56	1.34	1.37
69	A5	2159	C	C2-N3	-5.56	1.31	1.35
69	A5	2509	G	C5-C4	-5.56	1.34	1.38
69	A5	1140	G	C2-N3	-5.56	1.28	1.32
69	A5	2168	G	N1-C2	-5.55	1.33	1.37
69	A5	2239	C	C4-C5	-5.55	1.38	1.43
69	A5	2730	A	C5-C4	-5.55	1.34	1.38
69	A5	86	C	N3-C4	-5.55	1.30	1.33
69	A5	2192	U	C2-N3	-5.55	1.33	1.37
69	A5	383	A	C5-C4	-5.55	1.34	1.38
69	A5	1554	C	C4-C5	-5.55	1.38	1.43
69	A5	2197	A	C6-N1	-5.55	1.31	1.35
69	A5	3178	G	C2-N3	-5.55	1.28	1.32

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	CN	129	TYR	CD2-CE2	-5.54	1.31	1.39
69	A5	824	G	C8-N7	-5.54	1.27	1.30
69	A5	26	G	C2-N3	-5.54	1.28	1.32
69	A5	755	A	C5-C6	-5.54	1.36	1.41
69	A5	2163	A	C5-C4	-5.54	1.34	1.38
69	A5	375	C	C4-C5	-5.54	1.38	1.43
69	A5	790	U	N1-C6	-5.54	1.32	1.38
69	A5	2728	C	C4-N4	-5.54	1.28	1.33
69	A5	1272	G	C5-C4	-5.53	1.34	1.38
69	A5	2168	G	C8-N7	-5.53	1.27	1.30
69	A5	3347	G	N1-C2	-5.53	1.33	1.37
69	A5	425	A	N9-C4	-5.53	1.34	1.37
69	A5	801	G	C5-C4	-5.53	1.34	1.38
69	A5	3150	G	C6-N1	-5.53	1.35	1.39
69	A5	1022	A	C5-C6	-5.53	1.36	1.41
69	A5	366	A	C5-C4	-5.53	1.34	1.38
69	A5	426	A	N7-C5	-5.53	1.35	1.39
69	A5	803	A	C8-N7	-5.53	1.27	1.31
69	A5	1021	U	C2-N3	-5.53	1.33	1.37
69	A5	2542	C	N3-C4	-5.53	1.30	1.33
69	A5	781	C	N3-C4	-5.52	1.30	1.33
69	A5	1694	A	N9-C4	-5.52	1.34	1.37
69	A5	2172	C	C4-C5	-5.52	1.38	1.43
69	A5	1168	G	N9-C8	-5.52	1.33	1.37
69	A5	2566	A	N7-C5	-5.52	1.35	1.39
69	A5	985	G	C5-C4	-5.52	1.34	1.38
69	A5	1973	G	N7-C5	-5.52	1.35	1.39
69	A5	2548	G	C6-N1	-5.52	1.35	1.39
69	A5	3672	U	C5-C6	-5.52	1.29	1.34
69	A5	2751	A	N9-C4	-5.51	1.34	1.37
69	A5	3621	A	C8-N7	-5.51	1.27	1.31
69	A5	799	A	C8-N7	-5.51	1.27	1.31
69	A5	415	A	N7-C5	-5.51	1.35	1.39
69	A5	548	A	C6-N1	-5.51	1.31	1.35
69	A5	797	A	N9-C4	-5.51	1.34	1.37
69	A5	1137	G	C2-N3	-5.51	1.28	1.32
11	CA	208	GLU	CB-CG	-5.51	1.41	1.52
69	A5	49	A	N9-C4	-5.51	1.34	1.37
69	A5	104	A	N7-C5	-5.51	1.35	1.39
69	A5	3345	A	N7-C5	-5.51	1.35	1.39
69	A5	414	A	C5-C4	-5.51	1.34	1.38
40	A8	98	U	N1-C2	-5.51	1.33	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	661	G	N9-C8	-5.51	1.33	1.37
69	A5	1747	A	N7-C5	-5.51	1.35	1.39
69	A5	2539	G	N9-C8	-5.51	1.33	1.37
69	A5	2702	A	N9-C4	-5.51	1.34	1.37
69	A5	2773	G	N9-C8	-5.51	1.33	1.37
69	A5	360	A	N9-C8	-5.50	1.33	1.37
69	A5	1777	A	C5-C4	-5.50	1.34	1.38
69	A5	856	A	N7-C5	-5.50	1.35	1.39
69	A5	1001	A	N9-C8	-5.50	1.33	1.37
69	A5	2191	G	N3-C4	-5.50	1.31	1.35
69	A5	2202	A	C8-N7	-5.50	1.27	1.31
69	A5	3524	G	C6-N1	-5.50	1.35	1.39
69	A5	382	G	N7-C5	-5.50	1.35	1.39
69	A5	3417	C	N3-C4	-5.50	1.30	1.33
69	A5	2758	U	C2-N3	-5.50	1.33	1.37
69	A5	53	A	N7-C5	-5.50	1.35	1.39
69	A5	1112	G	C5-C4	-5.50	1.34	1.38
69	A5	1606	G	N9-C8	-5.50	1.34	1.37
69	A5	2800	C	N3-C4	-5.50	1.30	1.33
69	A5	2791	A	N9-C4	-5.50	1.34	1.37
69	A5	1018	C	N3-C4	-5.49	1.30	1.33
69	A5	1080	G	C5-C4	-5.49	1.34	1.38
69	A5	1015	G	C5-C6	-5.49	1.36	1.42
69	A5	1383	A	N9-C4	5.49	1.41	1.37
69	A5	2181	A	N3-C4	-5.49	1.31	1.34
69	A5	1107	G	N7-C5	-5.49	1.35	1.39
69	A5	2528	A	C5-C4	-5.49	1.34	1.38
69	A5	2726	A	N9-C4	-5.49	1.34	1.37
69	A5	2783	C	C2-N3	-5.49	1.31	1.35
69	A5	1111	C	C4-N4	-5.49	1.29	1.33
69	A5	2777	A	N9-C4	-5.49	1.34	1.37
69	A5	3332	G	N7-C5	-5.49	1.35	1.39
69	A5	1013	G	N9-C8	-5.48	1.34	1.37
69	A5	1015	G	C2-N3	-5.48	1.28	1.32
69	A5	1108	G	N9-C8	-5.48	1.34	1.37
69	A5	3499	G	C5-C4	-5.48	1.34	1.38
69	A5	418	G	C5-C4	-5.48	1.34	1.38
69	A5	998	G	C8-N7	-5.48	1.27	1.30
69	A5	2515	C	N3-C4	-5.48	1.30	1.33
69	A5	3167	A	N3-C4	-5.48	1.31	1.34
69	A5	422	G	N9-C8	-5.48	1.34	1.37
69	A5	3687	A	N9-C4	5.48	1.41	1.37

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	359	G	C5-C6	-5.47	1.36	1.42
69	A5	827	A	N7-C5	-5.47	1.35	1.39
69	A5	373	A	C5-C4	-5.47	1.34	1.38
69	A5	380	G	N1-C2	-5.47	1.33	1.37
69	A5	1611	G	N7-C5	-5.47	1.35	1.39
69	A5	1719	G	N7-C5	-5.47	1.35	1.39
69	A5	1117	A	C2-N3	-5.47	1.28	1.33
69	A5	1310	A	N7-C5	-5.47	1.35	1.39
69	A5	1521	G	N1-C2	-5.47	1.33	1.37
69	A5	1614	A	C8-N7	-5.47	1.27	1.31
69	A5	3589	G	N7-C5	-5.47	1.35	1.39
69	A5	3518	A	N9-C8	-5.47	1.33	1.37
5	Ca	120	ALA	C-N	-5.47	1.21	1.34
69	A5	772	G	C8-N7	-5.47	1.27	1.30
69	A5	1112	G	C6-N1	-5.47	1.35	1.39
69	A5	2754	G	N9-C8	-5.47	1.34	1.37
69	A5	2492	A	N7-C5	-5.46	1.35	1.39
69	A5	3488	G	N7-C5	-5.46	1.35	1.39
69	A5	1635	A	C8-N7	-5.46	1.27	1.31
69	A5	2745	A	C6-N1	-5.46	1.31	1.35
69	A5	3337	G	N9-C4	-5.46	1.33	1.38
69	A5	62	G	C8-N7	-5.46	1.27	1.30
69	A5	244	G	C5-C4	-5.46	1.34	1.38
69	A5	373	A	C5-C6	-5.46	1.36	1.41
69	A5	828	G	N7-C5	-5.46	1.35	1.39
69	A5	1110	G	N1-C2	-5.46	1.33	1.37
69	A5	2729	U	C4-C5	-5.46	1.38	1.43
69	A5	1119	C	N1-C2	-5.46	1.34	1.40
69	A5	1272	G	N9-C8	-5.46	1.34	1.37
69	A5	857	U	C2-N3	-5.45	1.33	1.37
69	A5	1015	G	N7-C5	-5.45	1.35	1.39
69	A5	2546	G	C6-N1	-5.45	1.35	1.39
69	A5	2786	U	N3-C4	-5.45	1.33	1.38
69	A5	3409	G	N9-C8	-5.45	1.34	1.37
69	A5	3490	C	N3-C4	-5.45	1.30	1.33
69	A5	1681	G	C5-C4	-5.45	1.34	1.38
69	A5	2155	A	C2-N3	-5.45	1.28	1.33
69	A5	3488	G	N9-C4	-5.45	1.33	1.38
69	A5	1126	A	N9-C4	-5.45	1.34	1.37
69	A5	359	G	C2-N3	-5.44	1.28	1.32
69	A5	1673	C	C2-N3	-5.44	1.31	1.35
69	A5	3518	A	N3-C4	-5.44	1.31	1.34

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	48	U	C4-O4	-5.44	1.19	1.23
69	A5	1702	G	C5-C4	-5.44	1.34	1.38
69	A5	38	A	C8-N7	-5.44	1.27	1.31
69	A5	1142	U	N3-C4	-5.44	1.33	1.38
69	A5	1611	G	N9-C8	-5.44	1.34	1.37
69	A5	414	A	N9-C4	-5.44	1.34	1.37
69	A5	2657	A	N3-C4	-5.44	1.31	1.34
69	A5	443	G	N9-C8	-5.43	1.34	1.37
69	A5	2230	G	C8-N7	-5.43	1.27	1.30
69	A5	921	C	C4-C5	-5.43	1.38	1.43
69	A5	2523	A	N3-C4	-5.43	1.31	1.34
69	A5	2728	C	N3-C4	-5.43	1.30	1.33
69	A5	803	A	N9-C4	-5.43	1.34	1.37
69	A5	1163	G	N7-C5	-5.43	1.35	1.39
69	A5	2216	A	C2-N3	-5.43	1.28	1.33
69	A5	2221	G	N1-C2	-5.43	1.33	1.37
69	A5	1022	A	C5-C4	-5.43	1.34	1.38
69	A5	2748	G	N1-C2	-5.42	1.33	1.37
69	A5	3268	A	C5-C4	-5.42	1.34	1.38
69	A5	1326	A	C5-C4	-5.42	1.34	1.38
69	A5	3346	G	C6-N1	-5.42	1.35	1.39
69	A5	987	G	N1-C2	-5.41	1.33	1.37
69	A5	1361	G	C2-N3	-5.41	1.28	1.32
69	A5	37	G	N7-C5	-5.41	1.36	1.39
69	A5	382	G	C6-N1	-5.41	1.35	1.39
69	A5	2212	A	C8-N7	-5.41	1.27	1.31
69	A5	3507	A	N7-C5	-5.41	1.36	1.39
40	A8	23	G	C5-C4	-5.41	1.34	1.38
69	A5	1545	A	N7-C5	-5.41	1.36	1.39
69	A5	62	G	N9-C4	-5.41	1.33	1.38
69	A5	2176	G	N9-C8	-5.40	1.34	1.37
69	A5	2727	U	N3-C4	-5.40	1.33	1.38
69	A5	820	A	C2-N3	-5.40	1.28	1.33
69	A5	825	C	N1-C6	-5.40	1.33	1.37
69	A5	1362	G	C6-N1	-5.40	1.35	1.39
69	A5	1675	G	C6-N1	-5.40	1.35	1.39
69	A5	2221	G	N9-C8	-5.40	1.34	1.37
69	A5	68	G	C8-N7	-5.40	1.27	1.30
69	A5	1009	G	C2-N3	-5.40	1.28	1.32
69	A5	2148	C	N3-C4	-5.40	1.30	1.33
69	A5	2721	C	C5-C6	-5.40	1.30	1.34
69	A5	2213	G	C5-C4	-5.40	1.34	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	A8	100	G	C8-N7	-5.39	1.27	1.30
69	A5	1005	G	N1-C2	-5.39	1.33	1.37
69	A5	2758	U	N1-C2	-5.39	1.33	1.38
69	A5	856	A	C5-C4	-5.39	1.34	1.38
69	A5	1620	A	C8-N7	-5.39	1.27	1.31
69	A5	1630	G	N9-C8	-5.39	1.34	1.37
69	A5	3880	A	N9-C4	-5.39	1.34	1.37
69	A5	1731	G	N9-C8	-5.39	1.34	1.37
69	A5	49	A	C5-C4	-5.39	1.34	1.38
69	A5	986	A	N7-C5	-5.39	1.36	1.39
69	A5	1553	C	N3-C4	-5.39	1.30	1.33
69	A5	2222	G	C2-N3	-5.39	1.28	1.32
69	A5	2504	A	C6-N1	-5.39	1.31	1.35
69	A5	754	A	N3-C4	-5.38	1.31	1.34
69	A5	3514	C	C4-C5	-5.38	1.38	1.43
69	A5	3753	A	N9-C4	5.38	1.41	1.37
69	A5	3883	G	C5-C4	-5.38	1.34	1.38
69	A5	911	A	C5-C4	-5.38	1.34	1.38
69	A5	3256	U	N3-C4	-5.38	1.33	1.38
69	A5	3870	A	C5-C4	-5.38	1.34	1.38
69	A5	1023	C	C4-C5	-5.38	1.38	1.43
69	A5	1002	C	C5-C6	-5.38	1.30	1.34
69	A5	1137	G	C5-C4	-5.38	1.34	1.38
69	A5	1174	G	C8-N7	-5.38	1.27	1.30
69	A5	1166	U	C4-C5	-5.38	1.38	1.43
69	A5	373	A	N9-C8	-5.37	1.33	1.37
69	A5	3257	U	N3-C4	-5.37	1.33	1.38
69	A5	3620	G	C5-C6	-5.37	1.36	1.42
69	A5	89	A	N7-C5	-5.37	1.36	1.39
69	A5	1114	A	N7-C5	-5.37	1.36	1.39
69	A5	1604	G	N9-C8	-5.37	1.34	1.37
69	A5	1782	C	N3-C4	-5.37	1.30	1.33
69	A5	437	G	C8-N7	-5.37	1.27	1.30
69	A5	807	A	N9-C4	-5.37	1.34	1.37
69	A5	3883	G	C2-N3	-5.37	1.28	1.32
69	A5	1182	A	C5-C6	-5.36	1.36	1.41
69	A5	241	C	N3-C4	-5.36	1.30	1.33
69	A5	63	G	N7-C5	-5.36	1.36	1.39
69	A5	814	U	C2-N3	-5.36	1.33	1.37
69	A5	1675	G	N1-C2	-5.36	1.33	1.37
69	A5	1752	G	N9-C8	-5.36	1.34	1.37
69	A5	3283	U	C5-C6	-5.36	1.29	1.34

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	447	G	C6-N1	-5.36	1.35	1.39
69	A5	801	G	C2-N3	-5.36	1.28	1.32
69	A5	819	U	C5-C6	-5.36	1.29	1.34
69	A5	1164	G	N9-C4	-5.36	1.33	1.38
69	A5	3670	G	C8-N7	-5.36	1.27	1.30
14	CP	130	TYR	CD1-CE1	-5.36	1.31	1.39
69	A5	65	A	C5-C4	-5.36	1.35	1.38
69	A5	1519	A	N9-C4	-5.36	1.34	1.37
69	A5	790	U	C4-C5	-5.36	1.38	1.43
69	A5	1676	A	C5-C4	-5.36	1.35	1.38
69	A5	443	G	C2-N3	-5.35	1.28	1.32
69	A5	1384	C	N3-C4	-5.35	1.30	1.33
69	A5	1315	A	N7-C5	-5.35	1.36	1.39
69	A5	801	G	N7-C5	-5.35	1.36	1.39
69	A5	1003	C	N3-C4	-5.35	1.30	1.33
69	A5	2659	A	C5-C4	-5.35	1.35	1.38
69	A5	2723	A	C8-N7	-5.35	1.27	1.31
69	A5	3180	G	C2-N3	-5.35	1.28	1.32
69	A5	1063	C	N3-C4	-5.34	1.30	1.33
69	A5	101	C	N3-C4	-5.34	1.30	1.33
69	A5	1523	A	C6-N1	-5.34	1.31	1.35
69	A5	2245	G	N9-C8	-5.34	1.34	1.37
69	A5	46	C	C4-C5	-5.34	1.38	1.43
69	A5	784	G	N1-C2	-5.34	1.33	1.37
69	A5	987	G	N7-C5	-5.34	1.36	1.39
69	A5	1792	G	N1-C2	-5.34	1.33	1.37
69	A5	3293	G	C5-C4	-5.34	1.34	1.38
69	A5	233	A	N7-C5	-5.33	1.36	1.39
69	A5	379	A	C6-N1	-5.33	1.31	1.35
69	A5	1764	G	C5-C4	-5.33	1.34	1.38
69	A5	301	U	C4-O4	-5.33	1.19	1.23
69	A5	1733	A	N3-C4	-5.33	1.31	1.34
69	A5	241	C	N1-C6	-5.33	1.33	1.37
69	A5	456	G	C6-N1	-5.33	1.35	1.39
69	A5	851	G	C5-C4	-5.33	1.34	1.38
69	A5	919	G	C6-N1	-5.33	1.35	1.39
69	A5	746	G	N3-C4	5.33	1.39	1.35
69	A5	796	A	C6-N1	-5.33	1.31	1.35
69	A5	1113	A	C8-N7	-5.33	1.27	1.31
69	A5	1206	G	N7-C5	-5.33	1.36	1.39
69	A5	1777	A	N7-C5	-5.33	1.36	1.39
69	A5	2105	C	N1-C6	-5.33	1.33	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1410	A	N9-C4	-5.33	1.34	1.37
69	A5	1644	C	N3-C4	-5.32	1.30	1.33
70	B2	1845	C	N1-C6	-5.32	1.33	1.37
69	A5	1622	U	N1-C2	-5.32	1.33	1.38
69	A5	2151	A	C2-N3	-5.32	1.28	1.33
40	A8	94	C	N3-C4	-5.32	1.30	1.33
69	A5	1633	G	C5-C4	-5.32	1.34	1.38
69	A5	299	G	C2-N3	-5.32	1.28	1.32
69	A5	859	A	N7-C5	-5.32	1.36	1.39
40	A8	42	A	N7-C5	-5.32	1.36	1.39
69	A5	1170	U	C5-C6	-5.32	1.29	1.34
69	A5	2552	G	N9-C8	-5.32	1.34	1.37
69	A5	354	A	C5-C4	-5.32	1.35	1.38
69	A5	3936	A	N9-C4	-5.32	1.34	1.37
69	A5	1011	U	C4-C5	-5.31	1.38	1.43
69	A5	988	C	N3-C4	-5.31	1.30	1.33
69	A5	1363	G	C5-C4	-5.31	1.34	1.38
69	A5	1696	A	N3-C4	-5.31	1.31	1.34
69	A5	1347	A	C6-N1	-5.31	1.31	1.35
69	A5	2038	A	C5-C6	-5.31	1.36	1.41
69	A5	68	G	C5-C4	-5.31	1.34	1.38
69	A5	2200	A	N9-C4	-5.31	1.34	1.37
69	A5	2210	U	C2-N3	-5.31	1.34	1.37
69	A5	214	A	N7-C5	-5.31	1.36	1.39
69	A5	1781	U	N3-C4	-5.31	1.33	1.38
69	A5	1150	G	N9-C8	-5.30	1.34	1.37
69	A5	2502	G	N7-C5	-5.30	1.36	1.39
69	A5	1065	A	N3-C4	-5.30	1.31	1.34
69	A5	295	G	C6-N1	-5.30	1.35	1.39
69	A5	1621	A	C8-N7	-5.30	1.27	1.31
69	A5	1792	G	C5-C4	-5.30	1.34	1.38
69	A5	3613	G	N3-C4	-5.30	1.31	1.35
40	A8	24	G	C8-N7	-5.30	1.27	1.30
69	A5	2769	G	C8-N7	-5.30	1.27	1.30
39	A7	96	U	C2-N3	-5.30	1.34	1.37
69	A5	2703	G	C2-N3	-5.29	1.28	1.32
69	A5	1174	G	N9-C8	-5.29	1.34	1.37
70	B2	1846	G	C5-C4	-5.29	1.34	1.38
69	A5	30	A	N9-C4	-5.29	1.34	1.37
69	A5	921	C	N3-C4	-5.29	1.30	1.33
69	A5	1354	G	C2-N3	-5.29	1.28	1.32
69	A5	3174	A	C5-C6	-5.29	1.36	1.41

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	39	A	C8-N7	-5.29	1.27	1.31
69	A5	631	A	N9-C4	5.29	1.41	1.37
69	A5	1126	A	N9-C8	-5.29	1.33	1.37
69	A5	1680	U	C5-C6	-5.29	1.29	1.34
69	A5	2246	A	N7-C5	-5.29	1.36	1.39
69	A5	3468	G	C2-N3	-5.29	1.28	1.32
69	A5	818	A	N7-C5	-5.29	1.36	1.39
69	A5	1526	G	C6-N1	-5.29	1.35	1.39
69	A5	377	U	C4-C5	-5.28	1.38	1.43
69	A5	1795	A	N3-C4	-5.28	1.31	1.34
69	A5	3355	G	C8-N7	-5.28	1.27	1.30
40	A8	39	A	N7-C5	-5.28	1.36	1.39
69	A5	49	A	N1-C2	-5.28	1.29	1.34
69	A5	1402	U	C2-N3	-5.28	1.34	1.37
69	A5	2674	A	C8-N7	-5.28	1.27	1.31
69	A5	418	G	N7-C5	-5.28	1.36	1.39
69	A5	3519	C	C5-C6	-5.28	1.30	1.34
69	A5	2720	U	C5-C6	-5.28	1.29	1.34
69	A5	1126	A	N7-C5	-5.27	1.36	1.39
69	A5	1080	G	C6-N1	-5.27	1.35	1.39
69	A5	2197	A	N7-C5	-5.27	1.36	1.39
69	A5	34	C	C4-C5	-5.27	1.38	1.43
69	A5	3347	G	C5-C4	-5.27	1.34	1.38
69	A5	3401	U	C2-N3	-5.27	1.34	1.37
69	A5	772	G	N7-C5	-5.27	1.36	1.39
69	A5	1723	G	N1-C2	-5.27	1.33	1.37
69	A5	2244	G	C8-N7	-5.27	1.27	1.30
69	A5	1107	G	C2-N3	-5.27	1.28	1.32
69	A5	1348	G	C5-C4	-5.27	1.34	1.38
69	A5	1516	A	N9-C4	-5.26	1.34	1.37
69	A5	1722	U	N3-C4	-5.26	1.33	1.38
69	A5	87	U	C2-N3	-5.26	1.34	1.37
69	A5	61	A	C5-C4	-5.26	1.35	1.38
69	A5	783	G	N7-C5	-5.26	1.36	1.39
69	A5	1032	G	C2-N3	-5.26	1.28	1.32
69	A5	1145	C	C4-C5	-5.26	1.38	1.43
69	A5	1735	G	C6-N1	-5.26	1.35	1.39
69	A5	2190	A	N7-C5	-5.26	1.36	1.39
69	A5	2759	G	C6-N1	-5.26	1.35	1.39
69	A5	3233	C	C4-C5	-5.26	1.38	1.43
69	A5	1321	G	C6-N1	-5.26	1.35	1.39
69	A5	83	U	N3-C4	-5.25	1.33	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	446	C	N3-C4	-5.25	1.30	1.33
69	A5	1610	A	N9-C8	-5.25	1.33	1.37
69	A5	3325	G	C8-N7	-5.25	1.27	1.30
69	A5	3482	G	N7-C5	-5.25	1.36	1.39
69	A5	782	G	N3-C4	-5.25	1.31	1.35
69	A5	2254	U	C2-N3	-5.25	1.34	1.37
69	A5	1101	A	C6-N1	-5.25	1.31	1.35
69	A5	62	G	C6-N1	-5.25	1.35	1.39
69	A5	2208	G	C6-N1	-5.25	1.35	1.39
9	CQ	105	VAL	CB-CG2	-5.24	1.41	1.52
69	A5	12	C	N3-C4	-5.24	1.30	1.33
69	A5	307	A	C5-C4	-5.24	1.35	1.38
69	A5	1555	G	C5-C4	-5.24	1.34	1.38
69	A5	1675	G	C5-C6	-5.24	1.37	1.42
69	A5	2188	C	N3-C4	-5.24	1.30	1.33
69	A5	3712	G	N9-C4	-5.24	1.33	1.38
69	A5	346	U	C2-N3	-5.24	1.34	1.37
69	A5	1090	U	N3-C4	-5.24	1.33	1.38
69	A5	1613	A	C6-N1	-5.24	1.31	1.35
69	A5	3345	A	N3-C4	-5.24	1.31	1.34
69	A5	817	C	C2-N3	-5.24	1.31	1.35
69	A5	1082	A	C5-C4	-5.24	1.35	1.38
69	A5	816	A	C6-N1	-5.24	1.31	1.35
69	A5	1694	A	C5-C4	-5.24	1.35	1.38
69	A5	3576	G	N7-C5	-5.24	1.36	1.39
69	A5	1348	G	N9-C4	-5.24	1.33	1.38
69	A5	2713	G	N1-C2	-5.24	1.33	1.37
69	A5	3478	G	N9-C8	-5.24	1.34	1.37
69	A5	428	C	N3-C4	-5.23	1.30	1.33
69	A5	856	A	C5-C6	-5.23	1.36	1.41
40	A8	100	G	N9-C8	-5.23	1.34	1.37
69	A5	31	C	C5-C6	-5.23	1.30	1.34
69	A5	843	A	C8-N7	-5.23	1.27	1.31
69	A5	852	C	C4-C5	-5.23	1.38	1.43
69	A5	1197	A	N9-C4	-5.23	1.34	1.37
69	A5	1694	A	C8-N7	-5.23	1.27	1.31
69	A5	504	A	N9-C4	-5.23	1.34	1.37
69	A5	1211	A	N9-C8	-5.23	1.33	1.37
69	A5	1611	G	N1-C2	-5.23	1.33	1.37
69	A5	1771	G	C5-C4	-5.23	1.34	1.38
69	A5	2546	G	C5-C4	-5.23	1.34	1.38
69	A5	2767	U	N3-C4	-5.23	1.33	1.38

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	3124	G	C5-C4	-5.23	1.34	1.38
69	A5	3511	U	C4-C5	-5.23	1.38	1.43
69	A5	1117	A	C5-C6	-5.22	1.36	1.41
69	A5	3488	G	C5-C4	-5.22	1.34	1.38
39	A7	93	G	N9-C8	-5.22	1.34	1.37
69	A5	230	C	N1-C6	-5.22	1.34	1.37
69	A5	2547	C	C5-C6	-5.22	1.30	1.34
39	A7	90	A	N3-C4	-5.22	1.31	1.34
69	A5	295	G	N1-C2	-5.22	1.33	1.37
69	A5	417	A	N3-C4	-5.22	1.31	1.34
69	A5	3876	U	C2-N3	-5.22	1.34	1.37
69	A5	339	C	C4-C5	-5.22	1.38	1.43
69	A5	2173	C	C4-C5	-5.22	1.38	1.43
69	A5	796	A	C8-N7	-5.21	1.27	1.31
69	A5	2725	U	C4-C5	-5.21	1.38	1.43
69	A5	98	G	N9-C4	-5.21	1.33	1.38
69	A5	3872	C	N3-C4	-5.21	1.30	1.33
69	A5	1391	A	N7-C5	-5.21	1.36	1.39
69	A5	1980	G	C8-N7	-5.21	1.27	1.30
69	A5	2246	A	C8-N7	-5.21	1.27	1.31
69	A5	2715	C	N3-C4	-5.21	1.30	1.33
69	A5	3171	A	C8-N7	-5.21	1.27	1.31
69	A5	1333	C	N3-C4	-5.21	1.30	1.33
69	A5	2160	C	C4-N4	-5.21	1.29	1.33
69	A5	823	U	C4-C5	-5.21	1.38	1.43
69	A5	2109	G	C2-N2	-5.21	1.29	1.34
69	A5	43	A	N3-C4	-5.21	1.31	1.34
69	A5	1151	A	C5-C4	-5.20	1.35	1.38
69	A5	2222	G	C8-N7	-5.20	1.27	1.30
69	A5	1724	A	N3-C4	-5.20	1.31	1.34
69	A5	548	A	N7-C5	-5.20	1.36	1.39
69	A5	1660	G	C2-N3	-5.20	1.28	1.32
6	CN	106	VAL	CB-CG2	-5.20	1.42	1.52
69	A5	1207	G	C5-C4	-5.20	1.34	1.38
69	A5	1330	G	C6-N1	-5.20	1.35	1.39
69	A5	3323	G	C2-N3	-5.20	1.28	1.32
69	A5	1392	A	N7-C5	-5.20	1.36	1.39
69	A5	1738	U	N3-C4	-5.20	1.33	1.38
69	A5	372	U	N3-C4	-5.20	1.33	1.38
69	A5	1535	U	C2-N3	-5.20	1.34	1.37
69	A5	1793	C	C5-C6	-5.20	1.30	1.34
69	A5	2776	A	C6-N1	-5.20	1.31	1.35

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	A9	23	G	N9-C4	-5.19	1.33	1.38
69	A5	804	C	N3-C4	-5.19	1.30	1.33
69	A5	386	G	C2-N3	-5.19	1.28	1.32
69	A5	1776	U	C2-N3	-5.19	1.34	1.37
69	A5	2177	G	C2-N3	-5.19	1.28	1.32
69	A5	3460	C	N3-C4	-5.19	1.30	1.33
69	A5	3884	A	C5-C4	-5.19	1.35	1.38
69	A5	1772	G	N9-C8	-5.19	1.34	1.37
69	A5	2191	G	C6-N1	-5.19	1.35	1.39
69	A5	3515	C	N3-C4	-5.19	1.30	1.33
69	A5	3672	U	N3-C4	-5.19	1.33	1.38
69	A5	2222	G	N3-C4	-5.19	1.31	1.35
69	A5	3252	G	C5-C4	-5.19	1.34	1.38
69	A5	1733	A	C5-C6	-5.19	1.36	1.41
69	A5	2746	A	C2-N3	-5.19	1.28	1.33
40	A8	36	A	C5-C4	-5.18	1.35	1.38
69	A5	363	G	N7-C5	-5.18	1.36	1.39
69	A5	802	G	N9-C4	-5.18	1.33	1.38
69	A5	1021	U	C4-C5	-5.18	1.38	1.43
69	A5	1774	C	C4-C5	-5.18	1.38	1.43
69	A5	2091	A	C6-N1	-5.18	1.31	1.35
69	A5	2527	A	C5-C6	-5.18	1.36	1.41
69	A5	818	A	C8-N7	-5.18	1.27	1.31
69	A5	2524	A	N7-C5	-5.18	1.36	1.39
69	A5	110	A	C6-N1	-5.18	1.31	1.35
69	A5	2704	A	N7-C5	-5.18	1.36	1.39
69	A5	3164	C	N3-C4	-5.18	1.30	1.33
69	A5	1606	G	C5-C4	-5.18	1.34	1.38
69	A5	101	C	C2-N3	-5.18	1.31	1.35
69	A5	1983	A	C6-N1	-5.18	1.31	1.35
69	A5	2679	U	N1-C6	-5.18	1.33	1.38
69	A5	907	A	N7-C5	-5.17	1.36	1.39
69	A5	1199	C	C4-C5	-5.17	1.38	1.43
69	A5	2658	A	N9-C4	-5.17	1.34	1.37
69	A5	3158	A	N9-C4	-5.17	1.34	1.37
69	A5	3175	A	C5-C4	-5.17	1.35	1.38
69	A5	989	A	N9-C8	-5.17	1.33	1.37
69	A5	753	U	C2-N3	-5.17	1.34	1.37
69	A5	818	A	C2-N3	-5.17	1.28	1.33
69	A5	2713	G	C6-N1	-5.17	1.35	1.39
69	A5	1678	C	C4-C5	-5.17	1.38	1.43
69	A5	1175	C	N1-C6	-5.17	1.34	1.37

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1801	U	C4'-C3'	-5.17	1.47	1.52
69	A5	1083	A	N7-C5	-5.17	1.36	1.39
69	A5	3847	U	N1-C2	5.17	1.43	1.38
40	A8	32	G	C6-N1	-5.17	1.35	1.39
69	A5	65	A	C8-N7	-5.17	1.27	1.31
69	A5	3349	A	C6-N1	-5.17	1.31	1.35
69	A5	1533	A	C8-N7	-5.16	1.27	1.31
69	A5	1624	G	N3-C4	-5.16	1.31	1.35
69	A5	384	A	N9-C8	-5.16	1.33	1.37
69	A5	799	A	C5-C6	-5.16	1.36	1.41
69	A5	2502	G	N9-C8	-5.16	1.34	1.37
69	A5	3627	C	N1-C6	-5.16	1.34	1.37
69	A5	99	A	N3-C4	-5.16	1.31	1.34
69	A5	1085	U	N3-C4	-5.16	1.33	1.38
69	A5	1271	G	C6-N1	-5.16	1.35	1.39
69	A5	355	G	N9-C4	-5.16	1.33	1.38
69	A5	1013	G	C5-C4	-5.16	1.34	1.38
69	A5	1781	U	C2-N3	-5.16	1.34	1.37
69	A5	351	A	C6-N6	-5.16	1.29	1.33
69	A5	2216	A	C6-N1	-5.16	1.31	1.35
69	A5	2748	G	N7-C5	-5.16	1.36	1.39
69	A5	3175	A	N7-C5	-5.16	1.36	1.39
36	CE	237	TYR	C-N	-5.15	1.24	1.34
39	A7	86	G	C5-C4	-5.15	1.34	1.38
69	A5	105	A	C6-N1	-5.15	1.31	1.35
69	A5	1695	A	N3-C4	-5.15	1.31	1.34
69	A5	783	G	N9-C8	-5.15	1.34	1.37
69	A5	1076	A	N7-C5	-5.15	1.36	1.39
69	A5	1095	G	N9-C8	5.15	1.41	1.37
69	A5	2163	A	N7-C5	-5.15	1.36	1.39
69	A5	1103	U	C2-N3	-5.15	1.34	1.37
69	A5	1366	G	N3-C4	-5.15	1.31	1.35
69	A5	2181	A	C8-N7	-5.15	1.27	1.31
69	A5	2719	A	C6-N6	-5.15	1.29	1.33
69	A5	2753	G	C8-N7	-5.15	1.27	1.30
69	A5	371	G	C6-N1	-5.15	1.35	1.39
69	A5	1621	A	C6-N1	-5.15	1.31	1.35
69	A5	3260	G	C8-N7	-5.15	1.27	1.30
69	A5	1670	G	N9-C8	-5.15	1.34	1.37
69	A5	112	C	N3-C4	-5.14	1.30	1.33
69	A5	809	G	N9-C8	-5.14	1.34	1.37
69	A5	2163	A	C5-C6	-5.14	1.36	1.41

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	3918	A	N7-C5	-5.14	1.36	1.39
69	A5	233	A	N9-C4	-5.14	1.34	1.37
69	A5	370	A	C6-N6	-5.14	1.29	1.33
69	A5	2503	G	N3-C4	-5.14	1.31	1.35
69	A5	2674	A	N7-C5	-5.14	1.36	1.39
69	A5	3678	G	C5-C4	-5.14	1.34	1.38
69	A5	3758	G	N9-C4	5.14	1.42	1.38
69	A5	1676	A	C6-N6	-5.14	1.29	1.33
69	A5	2731	G	C5-C4	-5.14	1.34	1.38
69	A5	1361	G	C6-N1	-5.14	1.35	1.39
69	A5	1380	G	C2-N3	-5.14	1.28	1.32
69	A5	3350	U	N1-C2	-5.14	1.33	1.38
69	A5	357	C	N1-C6	-5.14	1.34	1.37
69	A5	381	G	C5-C4	-5.14	1.34	1.38
69	A5	1383	A	P-O5'	5.14	1.64	1.59
69	A5	1414	C	C4-N4	-5.14	1.29	1.33
69	A5	2734	A	C5-C4	-5.14	1.35	1.38
38	A9	22	A	C5-C4	-5.13	1.35	1.38
69	A5	827	A	N9-C8	-5.13	1.33	1.37
69	A5	772	G	C5-C4	-5.13	1.34	1.38
69	A5	2727	U	C4-C5	-5.13	1.39	1.43
40	A8	103	C	C4-C5	-5.13	1.38	1.43
69	A5	394	G	C6-N1	-5.13	1.35	1.39
69	A5	2197	A	N9-C8	-5.13	1.33	1.37
69	A5	3413	C	N3-C4	-5.13	1.30	1.33
69	A5	1873	A	C5-C4	-5.13	1.35	1.38
69	A5	44	A	N9-C8	-5.13	1.33	1.37
69	A5	348	A	C6-N1	-5.13	1.31	1.35
69	A5	1734	G	C5-C4	-5.13	1.34	1.38
69	A5	68	G	N7-C5	-5.12	1.36	1.39
69	A5	1381	U	N3-C4	-5.12	1.33	1.38
69	A5	2500	G	N7-C5	-5.12	1.36	1.39
69	A5	2549	G	C6-N1	-5.12	1.35	1.39
69	A5	3263	C	N3-C4	-5.12	1.30	1.33
69	A5	1170	U	C4-C5	-5.12	1.39	1.43
69	A5	1362	G	C2-N3	-5.12	1.28	1.32
69	A5	1110	G	C5-C6	-5.12	1.37	1.42
69	A5	1176	A	C5-C6	-5.12	1.36	1.41
69	A5	1688	A	C5-C4	-5.12	1.35	1.38
69	A5	1016	A	C8-N7	-5.12	1.27	1.31
69	A5	1730	A	C8-N7	-5.12	1.27	1.31
69	A5	3470	G	C6-N1	-5.12	1.35	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	90	G	N3-C4	-5.12	1.31	1.35
69	A5	247	C	N3-C4	-5.12	1.30	1.33
69	A5	296	C	C4-C5	-5.12	1.38	1.43
69	A5	383	A	N9-C8	-5.12	1.33	1.37
69	A5	1684	G	C5-C4	-5.12	1.34	1.38
69	A5	1771	G	C2-N3	-5.12	1.28	1.32
69	A5	3539	C	C2-N3	-5.12	1.31	1.35
69	A5	806	A	C5-C4	-5.11	1.35	1.38
69	A5	831	A	C8-N7	-5.11	1.27	1.31
69	A5	1202	A	C5-C4	-5.11	1.35	1.38
69	A5	1792	G	C2-N3	-5.11	1.28	1.32
69	A5	2176	G	C5-C4	-5.11	1.34	1.38
69	A5	1539	A	N7-C5	-5.11	1.36	1.39
69	A5	2175	A	N3-C4	-5.11	1.31	1.34
69	A5	3491	C	C2-N3	-5.11	1.31	1.35
69	A5	3614	U	C4-O4	-5.11	1.19	1.23
69	A5	1080	G	N9-C4	-5.11	1.33	1.38
69	A5	63	G	C5-C4	-5.11	1.34	1.38
69	A5	1163	G	C2-N3	-5.11	1.28	1.32
69	A5	1638	G	C6-N1	-5.11	1.35	1.39
69	A5	1645	G	N7-C5	-5.11	1.36	1.39
69	A5	1661	C	N3-C4	-5.11	1.30	1.33
69	A5	2768	A	N7-C5	-5.11	1.36	1.39
69	A5	880	A	C8-N7	-5.10	1.27	1.31
69	A5	360	A	C5-C4	-5.10	1.35	1.38
69	A5	877	A	C6-N1	-5.10	1.31	1.35
69	A5	1592	U	C4-C5	-5.10	1.39	1.43
69	A5	1733	A	N7-C5	-5.10	1.36	1.39
69	A5	2738	C	C5-C6	-5.10	1.30	1.34
69	A5	3138	G	N9-C8	-5.10	1.34	1.37
69	A5	3480	U	C2-N3	-5.10	1.34	1.37
40	A8	32	G	C5-C4	-5.10	1.34	1.38
69	A5	1012	G	N9-C8	-5.10	1.34	1.37
69	A5	1314	U	N3-C4	-5.10	1.33	1.38
69	A5	1680	U	P-OP1	-5.10	1.40	1.49
69	A5	1891	U	N3-C4	-5.10	1.33	1.38
69	A5	2173	C	N3-C4	-5.10	1.30	1.33
69	A5	2565	G	N9-C8	-5.10	1.34	1.37
69	A5	3628	G	C8-N7	-5.10	1.27	1.30
69	A5	64	A	N7-C5	-5.10	1.36	1.39
69	A5	819	U	C4-C5	-5.10	1.39	1.43
69	A5	2580	C	N3-C4	-5.10	1.30	1.33

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2772	G	C5-C4	-5.10	1.34	1.38
69	A5	49	A	C2-N3	-5.10	1.28	1.33
69	A5	1777	A	C5-C6	-5.10	1.36	1.41
69	A5	2753	G	N1-C2	-5.10	1.33	1.37
69	A5	3728	A	C5-C4	-5.09	1.35	1.38
69	A5	3508	G	C8-N7	-5.09	1.27	1.30
69	A5	1099	U	C2-O2	-5.09	1.17	1.22
69	A5	1167	A	C8-N7	-5.09	1.27	1.31
69	A5	1332	C	N1-C6	-5.09	1.34	1.37
69	A5	1334	A	N7-C5	-5.09	1.36	1.39
69	A5	1615	G	C6-N1	-5.09	1.35	1.39
69	A5	2772	G	C6-N1	-5.09	1.35	1.39
69	A5	3498	A	N9-C8	-5.09	1.33	1.37
18	Cr	112	GLN	CB-CG	-5.09	1.38	1.52
69	A5	1120	A	C6-N1	-5.09	1.31	1.35
69	A5	1358	U	N3-C4	-5.09	1.33	1.38
69	A5	1611	G	C8-N7	-5.09	1.27	1.30
37	CG	62	TRP	CB-CG	-5.09	1.41	1.50
69	A5	989	A	N1-C2	-5.09	1.29	1.34
69	A5	2765	A	C8-N7	-5.09	1.27	1.31
69	A5	3152	G	N9-C8	-5.09	1.34	1.37
69	A5	910	C	N1-C6	-5.09	1.34	1.37
69	A5	1132	U	C2-N3	-5.09	1.34	1.37
69	A5	3176	C	N3-C4	-5.09	1.30	1.33
69	A5	1017	A	C8-N7	-5.08	1.27	1.31
69	A5	1376	U	N3-C4	-5.08	1.33	1.38
69	A5	2215	G	N7-C5	-5.08	1.36	1.39
69	A5	1692	G	C8-N7	-5.08	1.27	1.30
69	A5	1693	C	N1-C6	-5.08	1.34	1.37
69	A5	3298	U	C2-N3	-5.08	1.34	1.37
69	A5	3446	G	N1-C2	-5.08	1.33	1.37
69	A5	3518	A	N9-C4	-5.08	1.34	1.37
69	A5	3907	G	C5-C4	-5.08	1.34	1.38
40	A8	106	A	N7-C5	-5.08	1.36	1.39
69	A5	2107	U	N1-C2	-5.08	1.33	1.38
69	A5	796	A	C2-N3	-5.08	1.28	1.33
69	A5	2234	C	C4-C5	-5.08	1.38	1.43
69	A5	410	G	C2-N3	-5.08	1.28	1.32
69	A5	456	G	N1-C2	-5.08	1.33	1.37
69	A5	2232	U	N3-C4	-5.08	1.33	1.38
6	CN	152	CYS	CB-SG	-5.07	1.73	1.81
69	A5	365	A	C8-N7	-5.07	1.27	1.31

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	2744	C	C4-C5	-5.07	1.38	1.43
69	A5	38	A	C5-C4	-5.07	1.35	1.38
69	A5	63	G	C8-N7	-5.07	1.27	1.30
69	A5	823	U	N3-C4	-5.07	1.33	1.38
69	A5	1319	A	C8-N7	-5.07	1.27	1.31
69	A5	1692	G	C2-N2	-5.07	1.29	1.34
69	A5	2753	G	C5-C6	-5.07	1.37	1.42
69	A5	3480	U	C5-C6	-5.07	1.29	1.34
69	A5	822	G	C5-C4	-5.07	1.34	1.38
69	A5	861	C	N1-C6	-5.07	1.34	1.37
69	A5	1615	G	N1-C2	-5.07	1.33	1.37
69	A5	1874	G	C8-N7	-5.07	1.27	1.30
39	A7	11	A	N9-C4	-5.07	1.34	1.37
69	A5	808	G	N9-C4	-5.07	1.33	1.38
69	A5	919	G	N1-C2	-5.07	1.33	1.37
69	A5	1207	G	N1-C2	-5.07	1.33	1.37
69	A5	782	G	C5-C4	-5.07	1.34	1.38
69	A5	843	A	C5-C4	-5.07	1.35	1.38
69	A5	987	G	C5-C4	-5.07	1.34	1.38
69	A5	2221	G	N7-C5	-5.07	1.36	1.39
69	A5	3230	G	C5-C4	-5.07	1.34	1.38
69	A5	3328	G	N7-C5	-5.07	1.36	1.39
69	A5	3586	A	C5-C4	-5.07	1.35	1.38
69	A5	422	G	C8-N7	-5.06	1.27	1.30
69	A5	1031	G	C2-N3	-5.06	1.28	1.32
69	A5	2230	G	N9-C8	-5.06	1.34	1.37
69	A5	3337	G	N1-C2	-5.06	1.33	1.37
70	B2	1944	A	N9-C4	-5.06	1.34	1.37
40	A8	12	G	C5-C4	-5.06	1.34	1.38
69	A5	348	A	C2-N3	-5.06	1.28	1.33
69	A5	1588	A	N3-C4	5.06	1.37	1.34
69	A5	1719	G	C8-N7	-5.06	1.27	1.30
69	A5	916	C	N3-C4	-5.06	1.30	1.33
69	A5	2216	A	N1-C2	-5.06	1.29	1.34
69	A5	2780	A	N9-C4	-5.06	1.34	1.37
69	A5	370	A	C6-N1	-5.06	1.32	1.35
69	A5	443	G	C5-C6	-5.06	1.37	1.42
69	A5	58	G	C5-C4	-5.05	1.34	1.38
69	A5	441	A	C5-C4	-5.05	1.35	1.38
69	A5	1389	C	N3-C4	-5.05	1.30	1.33
69	A5	3474	G	C8-N7	-5.05	1.27	1.30
69	A5	1005	G	N7-C5	-5.05	1.36	1.39

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1643	G	N9-C8	-5.05	1.34	1.37
69	A5	2721	C	N1-C6	-5.05	1.34	1.37
69	A5	2735	A	C6-N1	-5.05	1.32	1.35
69	A5	1391	A	C8-N7	-5.05	1.28	1.31
69	A5	3481	G	N1-C2	-5.05	1.33	1.37
69	A5	389	G	N1-C2	-5.05	1.33	1.37
69	A5	2196	U	C2-N3	-5.05	1.34	1.37
69	A5	3471	A	C5-C6	-5.05	1.36	1.41
69	A5	353	G	N7-C5	-5.05	1.36	1.39
69	A5	1387	G	N7-C5	-5.05	1.36	1.39
69	A5	2773	G	N1-C2	-5.05	1.33	1.37
69	A5	2524	A	N3-C4	-5.05	1.31	1.34
69	A5	2774	G	N1-C2	-5.05	1.33	1.37
69	A5	3357	C	N3-C4	-5.05	1.30	1.33
69	A5	3408	C	C4-C5	-5.05	1.39	1.43
69	A5	1732	A	C8-N7	-5.04	1.28	1.31
69	A5	1369	C	C4-C5	-5.04	1.39	1.43
69	A5	1530	U	N1-C2	-5.04	1.34	1.38
69	A5	1792	G	C6-N1	-5.04	1.36	1.39
69	A5	2509	G	C6-N1	-5.04	1.36	1.39
69	A5	2679	U	C4-C5	-5.04	1.39	1.43
69	A5	2739	A	N7-C5	-5.04	1.36	1.39
69	A5	3673	G	C5-C4	-5.04	1.34	1.38
40	A8	40	A	N7-C5	-5.04	1.36	1.39
69	A5	98	G	C5-C6	-5.04	1.37	1.42
69	A5	1080	G	C6-O6	-5.04	1.19	1.24
69	A5	1522	G	C5-C4	-5.04	1.34	1.38
69	A5	1981	A	N1-C2	-5.04	1.29	1.34
69	A5	2184	G	N3-C4	-5.04	1.31	1.35
69	A5	1348	G	N3-C4	-5.04	1.31	1.35
69	A5	1618	A	C6-N1	-5.04	1.32	1.35
69	A5	1792	G	N9-C8	-5.04	1.34	1.37
69	A5	1000	G	N1-C2	-5.04	1.33	1.37
69	A5	1535	U	N1-C2	-5.04	1.34	1.38
69	A5	1624	G	N7-C5	-5.04	1.36	1.39
69	A5	1797	A	C6-N1	-5.04	1.32	1.35
69	A5	2750	A	C6-N1	-5.04	1.32	1.35
69	A5	3762	G	N9-C4	-5.04	1.33	1.38
69	A5	2549	G	C8-N7	-5.04	1.27	1.30
69	A5	864	G	N7-C5	-5.04	1.36	1.39
69	A5	1060	G	C2-N3	-5.04	1.28	1.32
69	A5	2791	A	C5-C6	-5.04	1.36	1.41

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	62	G	C5-C6	-5.03	1.37	1.42
69	A5	1019	U	C4-O4	-5.03	1.19	1.23
69	A5	2196	U	N3-C4	-5.03	1.33	1.38
69	A5	2528	A	N9-C8	-5.03	1.33	1.37
69	A5	2781	G	N7-C5	-5.03	1.36	1.39
69	A5	807	A	N1-C2	-5.03	1.29	1.34
40	A8	101	A	N7-C5	-5.03	1.36	1.39
69	A5	803	A	C6-N1	-5.03	1.32	1.35
69	A5	1612	G	C5-C4	-5.03	1.34	1.38
69	A5	1698	A	C6-N1	-5.03	1.32	1.35
69	A5	1736	G	C5-C4	-5.03	1.34	1.38
69	A5	1787	C	N1-C6	-5.03	1.34	1.37
69	A5	444	C	N1-C6	-5.03	1.34	1.37
69	A5	1377	A	N9-C8	-5.03	1.33	1.37
69	A5	1392	A	C5-C4	-5.03	1.35	1.38
69	A5	1551	U	C2-N3	-5.03	1.34	1.37
69	A5	3670	G	N7-C5	-5.03	1.36	1.39
69	A5	371	G	C6-O6	-5.03	1.19	1.24
69	A5	654	G	N7-C5	-5.03	1.36	1.39
69	A5	2727	U	C2-N3	-5.03	1.34	1.37
69	A5	2739	A	N9-C8	-5.03	1.33	1.37
70	B2	1846	G	N7-C5	-5.03	1.36	1.39
69	A5	1005	G	C6-N1	-5.02	1.36	1.39
69	A5	1381	U	C4-O4	-5.02	1.19	1.23
69	A5	3403	G	C8-N7	-5.02	1.27	1.30
69	A5	1318	A	C6-N1	-5.02	1.32	1.35
69	A5	1734	G	N1-C2	-5.02	1.33	1.37
69	A5	1319	A	C5-C4	-5.02	1.35	1.38
69	A5	33	C	C5-C6	-5.02	1.30	1.34
69	A5	1626	A	N7-C5	-5.02	1.36	1.39
69	A5	2771	G	N1-C2	-5.02	1.33	1.37
69	A5	378	G	C5-C6	-5.02	1.37	1.42
69	A5	1115	A	C8-N7	-5.02	1.28	1.31
69	A5	1100	G	N9-C8	-5.02	1.34	1.37
69	A5	3508	G	C5-C4	-5.02	1.34	1.38
69	A5	229	C	N3-C4	-5.01	1.30	1.33
69	A5	803	A	N9-C8	-5.01	1.33	1.37
69	A5	1012	G	C8-N7	-5.01	1.27	1.30
69	A5	1679	U	C2-N3	-5.01	1.34	1.37
69	A5	1875	G	C8-N7	-5.01	1.27	1.30
69	A5	230	C	N3-C4	-5.01	1.30	1.33
69	A5	1063	C	N1-C6	-5.01	1.34	1.37

*Continued on next page...*



Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	A5	1375	G	N9-C8	-5.01	1.34	1.37
69	A5	1771	G	C8-N7	-5.01	1.27	1.30
69	A5	2177	G	N3-C4	-5.01	1.31	1.35
69	A5	2225	A	N9-C4	-5.01	1.34	1.37
69	A5	783	G	C6-N1	-5.01	1.36	1.39
69	A5	1111	C	C2-N3	-5.01	1.31	1.35
69	A5	3620	G	N9-C4	-5.01	1.33	1.38
69	A5	1035	G	C5-C6	-5.01	1.37	1.42
69	A5	1610	A	N7-C5	-5.01	1.36	1.39
69	A5	1747	A	C5-C4	-5.01	1.35	1.38
69	A5	1339	U	C2-N3	-5.00	1.34	1.37
69	A5	2161	G	C2-N3	-5.00	1.28	1.32
69	A5	1025	U	C2-N3	-5.00	1.34	1.37

All (3669) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1699	A	N1-C6-N6	-37.41	96.15	118.60
69	A5	3472	A	C8-N9-C4	-20.68	97.53	105.80
69	A5	1699	A	C5-C6-N6	20.58	140.17	123.70
69	A5	840	U	O5'-P-OP1	-19.48	87.32	110.70
69	A5	33	C	C6-N1-C2	-17.17	113.43	120.30
69	A5	3594	A	O5'-P-OP1	-16.97	90.34	110.70
69	A5	1799	U	C2-N1-C1'	16.70	137.74	117.70
69	A5	1689	G	N1-C6-O6	16.64	129.88	119.90
69	A5	1383	A	C8-N9-C4	-16.28	99.29	105.80
69	A5	1803	C	C6-N1-C2	-16.25	113.80	120.30
69	A5	3847	U	N3-C2-O2	-16.23	110.84	122.20
69	A5	1366	G	N3-C4-N9	-16.22	116.27	126.00
69	A5	2492	A	C8-N9-C4	-16.12	99.35	105.80
69	A5	811	G	N3-C4-N9	-16.07	116.36	126.00
69	A5	322	G	C5-C6-O6	-15.86	119.08	128.60
69	A5	1795	A	C4-C5-N7	15.24	118.32	110.70
69	A5	3847	U	N1-C2-O2	15.05	133.34	122.80
69	A5	1796	A	C8-N9-C4	-14.98	99.81	105.80
69	A5	805	C	N1-C2-O2	14.97	127.88	118.90
69	A5	2162	C	C5-C6-N1	14.97	128.48	121.00
69	A5	1801	U	O4'-C1'-N1	14.95	120.16	108.20
69	A5	1799	U	C6-N1-C1'	-14.89	100.35	121.20
69	A5	1799	U	C5-C4-O4	-14.70	117.08	125.90
69	A5	1689	G	N7-C8-N9	14.31	120.25	113.10
69	A5	477	C	N1-C2-O2	14.24	127.44	118.90

Continued on next page...

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	322	G	C4-C5-N7	14.20	116.48	110.80
69	A5	1718	G	C8-N9-C4	-14.17	100.73	106.40
69	A5	1699	A	C6-C5-N7	14.06	142.14	132.30
69	A5	1689	G	C6-C5-N7	-13.96	122.02	130.40
69	A5	3676	C	N1-C2-O2	13.90	127.24	118.90
69	A5	322	G	N9-C4-C5	-13.86	99.86	105.40
69	A5	2151	A	C6-N1-C2	13.82	126.89	118.60
69	A5	1699	A	N9-C4-C5	13.80	111.32	105.80
69	A5	1289	C	C6-N1-C2	-13.73	114.81	120.30
69	A5	1197	A	C6-N1-C2	13.64	126.79	118.60
69	A5	1366	G	N3-C4-C5	13.62	135.41	128.60
69	A5	322	G	N1-C6-O6	13.58	128.05	119.90
69	A5	1689	G	C8-N9-C4	-13.55	100.98	106.40
69	A5	2733	G	C5-C6-N1	13.54	118.27	111.50
69	A5	296	C	C6-N1-C2	-13.47	114.91	120.30
69	A5	3677	U	O4'-C1'-N1	13.47	118.97	108.20
69	A5	2733	G	C4-C5-N7	13.47	116.19	110.80
69	A5	3281	G	C2-N3-C4	13.41	118.61	111.90
69	A5	3472	A	N7-C8-N9	13.40	120.50	113.80
69	A5	1095	G	C8-N9-C4	-13.31	101.08	106.40
69	A5	3676	C	N3-C2-O2	-13.21	112.65	121.90
69	A5	2162	C	C5-C4-N4	-13.20	110.96	120.20
69	A5	2733	G	C5-C6-O6	-13.12	120.73	128.60
69	A5	1796	A	N7-C8-N9	13.02	120.31	113.80
69	A5	1784	A	C5-C6-N1	12.92	124.16	117.70
69	A5	3141	A	O5'-P-OP1	-12.91	94.08	105.70
69	A5	1718	G	N7-C8-N9	12.84	119.52	113.10
69	A5	1160	U	O5'-P-OP2	-12.79	94.19	105.70
40	A8	27	C	C6-N1-C2	-12.78	115.19	120.30
69	A5	1169	C	C6-N1-C2	-12.77	115.19	120.30
69	A5	3226	A	C2-N3-C4	12.74	116.97	110.60
69	A5	1689	G	C5-C6-O6	-12.69	120.99	128.60
69	A5	1795	A	N9-C4-C5	-12.66	100.73	105.80
69	A5	2492	A	N7-C8-N9	12.62	120.11	113.80
69	A5	3591	A	C2-N3-C4	-12.61	104.30	110.60
69	A5	805	C	N3-C2-O2	-12.58	113.09	121.90
69	A5	1738	U	C4-C5-C6	12.57	127.24	119.70
69	A5	1384	C	C6-N1-C2	-12.52	115.29	120.30
69	A5	866	C	C6-N1-C2	-12.51	115.30	120.30
69	A5	2517	A	C8-N9-C4	-12.50	100.80	105.80
69	A5	3675	A	N1-C6-N6	-12.48	111.11	118.60
69	A5	1699	A	C4-C5-N7	-12.44	104.48	110.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2155	A	C8-N9-C4	-12.44	100.83	105.80
69	A5	33	C	C5-C6-N1	12.42	127.21	121.00
69	A5	2155	A	N7-C8-N9	12.38	119.99	113.80
69	A5	663	U	N3-C2-O2	-12.36	113.55	122.20
69	A5	46	C	C6-N1-C2	-12.34	115.37	120.30
69	A5	866	C	C5-C6-N1	12.33	127.17	121.00
69	A5	3754	C	O5'-P-OP1	12.33	125.50	110.70
69	A5	477	C	C2-N1-C1'	12.25	132.27	118.80
69	A5	3258	C	N3-C2-O2	-12.19	113.37	121.90
69	A5	3258	C	C6-N1-C2	-12.17	115.43	120.30
69	A5	3847	U	O5'-P-OP1	-12.12	94.79	105.70
69	A5	1803	C	C5-C6-N1	12.10	127.05	121.00
69	A5	3730	G	C8-N9-C4	-12.10	101.56	106.40
70	B2	932	U	C2-N1-C1'	12.04	132.15	117.70
69	A5	2517	A	N7-C8-N9	12.04	119.82	113.80
69	A5	1117	A	N1-C2-N3	-12.01	123.29	129.30
69	A5	1866	G	C5-C6-O6	-12.00	121.40	128.60
69	A5	1699	A	C5-C6-N1	11.96	123.68	117.70
69	A5	1589	A	C8-N9-C4	-11.93	101.03	105.80
69	A5	699	U	C2-N1-C1'	11.93	132.01	117.70
69	A5	1795	A	C5-N7-C8	-11.91	97.94	103.90
69	A5	981	C	C6-N1-C2	-11.84	115.57	120.30
69	A5	1801	U	C6-N1-C2	-11.82	113.91	121.00
69	A5	1738	U	N3-C2-O2	-11.82	113.93	122.20
69	A5	1784	A	C5-C6-N6	-11.74	114.31	123.70
69	A5	1715	G	N3-C4-N9	-11.73	118.96	126.00
69	A5	811	G	N3-C4-C5	11.69	134.44	128.60
69	A5	35	C	N3-C2-O2	-11.68	113.72	121.90
70	B2	315	C	C6-N1-C2	-11.67	115.63	120.30
69	A5	35	C	N1-C2-O2	11.65	125.89	118.90
69	A5	548	A	C6-N1-C2	11.64	125.59	118.60
69	A5	548	A	N1-C2-N3	-11.60	123.50	129.30
69	A5	1592	U	C5-C6-N1	11.59	128.50	122.70
69	A5	3281	G	N3-C4-C5	-11.57	122.81	128.60
69	A5	1671	U	N3-C4-O4	-11.52	111.34	119.40
69	A5	1718	G	N3-C4-C5	-11.51	122.85	128.60
69	A5	3714	U	N1-C2-O2	11.50	130.85	122.80
69	A5	874	G	N7-C8-N9	11.49	118.84	113.10
69	A5	3475	U	O5'-P-OP1	-11.49	95.36	105.70
69	A5	881	G	C6-C5-N7	11.48	137.29	130.40
69	A5	2162	C	N3-C4-N4	11.46	126.02	118.00
69	A5	1017	A	N7-C8-N9	11.43	119.52	113.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3847	U	C2-N1-C1'	11.43	131.42	117.70
69	A5	3714	U	C2-N1-C1'	11.42	131.40	117.70
69	A5	1145	C	C6-N1-C2	-11.39	115.74	120.30
69	A5	1325	C	N3-C2-O2	-11.38	113.94	121.90
69	A5	3515	C	N1-C2-O2	11.36	125.71	118.90
69	A5	1785	G	C8-N9-C4	-11.34	101.86	106.40
69	A5	1313	A	C2-N3-C4	-11.33	104.94	110.60
69	A5	3728	A	N1-C6-N6	-11.30	111.82	118.60
69	A5	1715	G	N3-C2-N2	-11.30	111.99	119.90
69	A5	1017	A	C8-N9-C4	-11.25	101.30	105.80
69	A5	1689	G	O5'-P-OP2	11.24	124.19	110.70
69	A5	2239	C	C6-N1-C2	-11.23	115.81	120.30
69	A5	1803	C	C2-N1-C1'	11.23	131.15	118.80
69	A5	1197	A	N1-C2-N3	-11.20	123.70	129.30
69	A5	1108	G	N3-C4-C5	-11.20	123.00	128.60
69	A5	3714	U	N3-C2-O2	-11.14	114.40	122.20
69	A5	866	C	N1-C2-O2	11.14	125.58	118.90
70	B2	932	U	N1-C2-O2	11.12	130.58	122.80
70	B2	631	C	N3-C2-O2	-11.12	114.12	121.90
69	A5	3841	C	O4'-C1'-N1	11.11	117.09	108.20
69	A5	3471	A	N1-C2-N3	-11.04	123.78	129.30
69	A5	1670	G	C5-C6-O6	-11.02	121.99	128.60
69	A5	3675	A	C4-C5-C6	-10.99	111.50	117.00
69	A5	2517	A	C5-N7-C8	-10.97	98.42	103.90
70	B2	631	C	N1-C2-O2	10.96	125.47	118.90
69	A5	2733	G	N9-C4-C5	-10.93	101.03	105.40
69	A5	798	C	C6-N1-C2	-10.93	115.93	120.30
69	A5	3292	C	N1-C2-O2	10.88	125.43	118.90
69	A5	839	A	C8-N9-C4	10.87	110.15	105.80
69	A5	477	C	N3-C2-O2	-10.86	114.30	121.90
70	B2	932	U	N3-C2-O2	-10.83	114.62	122.20
69	A5	1689	G	C4-C5-N7	10.83	115.13	110.80
69	A5	1095	G	N7-C8-N9	10.82	118.51	113.10
69	A5	1718	G	C4-N9-C1'	10.77	140.51	126.50
69	A5	546	G	C4-C5-N7	10.76	115.11	110.80
69	A5	3891	U	C2-N1-C1'	10.75	130.60	117.70
69	A5	3569	C	C2-N1-C1'	10.72	130.59	118.80
69	A5	1170	U	N1-C2-O2	10.71	130.30	122.80
70	B2	878	C	N1-C2-O2	10.69	125.32	118.90
69	A5	1115	A	C2-N3-C4	-10.69	105.26	110.60
69	A5	798	C	N3-C2-O2	-10.68	114.42	121.90
69	A5	1803	C	N1-C2-O2	10.65	125.29	118.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	38	A	N1-C2-N3	-10.64	123.98	129.30
69	A5	2155	A	C5-N7-C8	-10.62	98.59	103.90
69	A5	1383	A	N7-C8-N9	10.60	119.10	113.80
69	A5	910	C	N3-C4-N4	-10.59	110.59	118.00
69	A5	3246	G	N3-C4-C5	10.59	133.89	128.60
69	A5	1325	C	C2-N1-C1'	10.57	130.43	118.80
69	A5	1142	U	C5-C4-O4	-10.57	119.56	125.90
39	A7	78	C	C6-N1-C2	-10.56	116.08	120.30
69	A5	301	U	N1-C2-O2	10.55	130.19	122.80
69	A5	1795	A	C6-C5-N7	-10.55	124.92	132.30
69	A5	761	C	C5-C6-N1	10.54	126.27	121.00
69	A5	1000	G	C2-N3-C4	10.53	117.17	111.90
70	B2	1596	C	C2-N1-C1'	10.51	130.37	118.80
69	A5	339	C	C5-C6-N1	10.51	126.25	121.00
69	A5	34	C	C6-N1-C2	-10.50	116.10	120.30
69	A5	3515	C	N3-C2-O2	-10.48	114.56	121.90
69	A5	1318	A	C5-N7-C8	-10.44	98.68	103.90
69	A5	1751	U	O5'-P-OP1	-10.44	96.30	105.70
69	A5	1689	G	C2-N3-C4	-10.43	106.68	111.90
69	A5	2797	A	O5'-P-OP1	-10.39	96.34	105.70
69	A5	1671	U	O5'-P-OP1	-10.39	96.35	105.70
69	A5	2744	C	C6-N1-C2	-10.38	116.15	120.30
69	A5	2224	A	N7-C8-N9	10.38	118.99	113.80
69	A5	3292	C	N3-C2-O2	-10.37	114.64	121.90
69	A5	3677	U	N1-C1'-C2'	10.37	127.48	114.00
69	A5	3149	U	N3-C2-O2	-10.37	114.94	122.20
69	A5	553	A	N7-C8-N9	10.36	118.98	113.80
69	A5	813	C	C5-C6-N1	10.36	126.18	121.00
69	A5	555	U	N3-C2-O2	-10.33	114.97	122.20
69	A5	1898	C	C6-N1-C2	-10.33	116.17	120.30
69	A5	1678	C	C6-N1-C2	-10.30	116.18	120.30
69	A5	981	C	N3-C2-O2	-10.29	114.70	121.90
70	B2	635	C	N1-C2-O2	10.28	125.07	118.90
69	A5	1671	U	N1-C2-O2	10.27	129.99	122.80
40	A8	84	U	N1-C2-O2	10.27	129.99	122.80
69	A5	1699	A	C6-N1-C2	-10.25	112.45	118.60
69	A5	1785	G	N7-C8-N9	10.25	118.23	113.10
69	A5	1689	G	OP1-P-OP2	-10.25	104.22	119.60
69	A5	800	C	O5'-P-OP1	-10.24	96.48	105.70
69	A5	1689	G	C5-N7-C8	-10.20	99.20	104.30
69	A5	2091	A	C2-N3-C4	-10.20	105.50	110.60
69	A5	3461	C	C6-N1-C2	-10.20	116.22	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	A8	17	U	O5'-P-OP1	-10.18	96.53	105.70
69	A5	3405	U	N3-C2-O2	-10.17	115.08	122.20
69	A5	105	A	C5-N7-C8	-10.17	98.81	103.90
69	A5	3891	U	N1-C2-O2	10.13	129.89	122.80
69	A5	424	G	O4'-C1'-N9	10.06	116.25	108.20
69	A5	3193	C	N3-C2-O2	-10.05	114.86	121.90
69	A5	1799	U	O4'-C1'-N1	10.04	116.23	108.20
69	A5	2194	G	C2-N3-C4	10.03	116.92	111.90
69	A5	1688	A	O4'-C1'-N9	10.03	116.22	108.20
21	CB	324	GLY	N-CA-C	10.02	138.14	113.10
69	A5	1670	G	N1-C6-O6	10.00	125.90	119.90
69	A5	754	A	C2-N3-C4	-9.98	105.61	110.60
69	A5	659	U	N3-C2-O2	-9.98	115.21	122.20
69	A5	1115	A	C5-N7-C8	-9.98	98.91	103.90
69	A5	868	A	C8-N9-C4	-9.97	101.81	105.80
69	A5	1288	U	N1-C2-O2	9.96	129.77	122.80
69	A5	1865	U	C2-N1-C1'	9.95	129.64	117.70
69	A5	2037	C	O4'-C1'-N1	9.95	116.16	108.20
69	A5	1355	C	N1-C2-O2	9.95	124.87	118.90
69	A5	3140	G	OP1-P-O3'	9.90	126.98	105.20
69	A5	558	C	N3-C2-O2	-9.90	114.97	121.90
69	A5	2239	C	C5-C6-N1	9.90	125.95	121.00
69	A5	915	C	C6-N1-C2	-9.89	116.34	120.30
40	A8	84	U	C2-N1-C1'	9.86	129.53	117.70
70	B2	631	C	C6-N1-C2	-9.86	116.36	120.30
69	A5	301	U	N3-C2-O2	-9.86	115.30	122.20
69	A5	3472	A	N3-C4-C5	-9.85	119.90	126.80
69	A5	546	G	C6-C5-N7	-9.85	124.49	130.40
69	A5	553	A	C8-N9-C4	-9.85	101.86	105.80
69	A5	2160	C	N3-C2-O2	-9.85	115.01	121.90
69	A5	3472	A	N9-C4-C5	9.84	109.73	105.80
69	A5	3417	C	C6-N1-C2	-9.84	116.37	120.30
69	A5	1407	C	N1-C2-O2	9.83	124.80	118.90
69	A5	3542	C	C6-N1-C2	-9.83	116.37	120.30
40	A8	64	C	C6-N1-C2	-9.82	116.37	120.30
69	A5	322	G	C6-C5-N7	-9.81	124.51	130.40
69	A5	1866	G	C4-C5-N7	9.81	114.72	110.80
69	A5	2530	C	C6-N1-C2	-9.81	116.38	120.30
69	A5	3751	C	C2-N1-C1'	9.81	129.59	118.80
69	A5	1370	C	C6-N1-C2	-9.80	116.38	120.30
69	A5	1090	U	N3-C2-O2	-9.79	115.34	122.20
69	A5	1136	A	O5'-P-OP1	-9.79	96.89	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2743	C	C5-C6-N1	9.78	125.89	121.00
69	A5	1671	U	N3-C4-C5	9.77	120.46	114.60
69	A5	1739	U	C5-C6-N1	9.76	127.58	122.70
69	A5	761	C	C6-N1-C2	-9.75	116.40	120.30
69	A5	749	U	C5-C6-N1	9.75	127.58	122.70
69	A5	2692	U	N1-C2-O2	9.75	129.63	122.80
69	A5	201	U	N3-C2-O2	-9.74	115.38	122.20
69	A5	1311	U	N3-C2-O2	-9.74	115.38	122.20
69	A5	2127	C	C6-N1-C2	-9.72	116.41	120.30
69	A5	1799	U	N3-C4-C5	9.70	120.42	114.60
69	A5	2090	U	N3-C2-O2	-9.70	115.41	122.20
69	A5	658	A	N1-C2-N3	-9.69	124.46	129.30
69	A5	3591	A	N3-C4-C5	9.67	133.57	126.80
69	A5	1108	G	C8-N9-C4	-9.67	102.53	106.40
69	A5	1318	A	C2-N3-C4	-9.64	105.78	110.60
69	A5	1738	U	C5-C6-N1	-9.64	117.88	122.70
69	A5	32	C	N1-C2-O2	9.61	124.67	118.90
69	A5	2734	A	N9-C4-C5	-9.61	101.96	105.80
69	A5	1026	G	N3-C2-N2	9.60	126.62	119.90
69	A5	1678	C	N1-C2-O2	9.58	124.65	118.90
69	A5	1318	A	N7-C8-N9	9.57	118.59	113.80
69	A5	982	C	N1-C2-O2	9.57	124.64	118.90
69	A5	2170	C	N1-C2-O2	9.55	124.63	118.90
69	A5	3398	C	C6-N1-C2	-9.55	116.48	120.30
69	A5	852	C	C6-N1-C2	-9.55	116.48	120.30
69	A5	881	G	C8-N9-C1'	9.54	139.40	127.00
69	A5	3569	C	N1-C2-O2	9.53	124.62	118.90
69	A5	2159	C	N3-C2-O2	-9.52	115.24	121.90
69	A5	1588	A	C2-N3-C4	9.52	115.36	110.60
69	A5	1784	A	C6-N1-C2	-9.51	112.89	118.60
69	A5	1793	C	C2-N1-C1'	9.50	129.25	118.80
69	A5	811	G	N9-C4-C5	9.49	109.20	105.40
69	A5	3738	U	N1-C2-O2	9.49	129.44	122.80
69	A5	3475	U	N3-C2-O2	-9.49	115.56	122.20
69	A5	350	C	C6-N1-C2	-9.48	116.51	120.30
69	A5	3389	C	N3-C2-O2	-9.47	115.27	121.90
69	A5	1520	U	O5'-P-OP2	-9.47	97.18	105.70
69	A5	881	G	N3-C4-N9	-9.46	120.32	126.00
69	A5	1313	A	C5-N7-C8	-9.46	99.17	103.90
69	A5	811	G	C2-N3-C4	-9.46	107.17	111.90
69	A5	2718	U	N3-C2-O2	-9.45	115.59	122.20
69	A5	811	G	C5-C6-O6	9.43	134.26	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	839	A	P-O3'-C3'	9.43	131.02	119.70
69	A5	1111	C	O5'-P-OP2	-9.43	97.21	105.70
69	A5	1527	C	N3-C2-O2	-9.42	115.31	121.90
69	A5	1865	U	C5-C6-N1	9.41	127.41	122.70
69	A5	2067	C	C6-N1-C2	-9.40	116.54	120.30
69	A5	1997	C	N1-C2-O2	9.40	124.54	118.90
69	A5	1183	U	C5-C6-N1	9.40	127.40	122.70
69	A5	2511	C	C6-N1-C2	-9.40	116.54	120.30
40	A8	10	C	C6-N1-C2	-9.37	116.55	120.30
69	A5	1314	U	N3-C2-O2	-9.37	115.64	122.20
69	A5	3416	C	C6-N1-C2	-9.37	116.55	120.30
69	A5	1738	U	N1-C2-N3	9.36	120.52	114.90
69	A5	3481	G	C2-N3-C4	9.34	116.57	111.90
69	A5	3686	A	O4'-C1'-N9	9.34	115.67	108.20
69	A5	3841	C	C6-N1-C2	-9.33	116.57	120.30
69	A5	3675	A	C6-C5-N7	9.32	138.83	132.30
69	A5	3758	G	N3-C4-C5	-9.31	123.94	128.60
69	A5	46	C	C5-C6-N1	9.30	125.65	121.00
69	A5	1079	U	N3-C2-O2	-9.29	115.69	122.20
69	A5	984	U	N1-C2-O2	9.28	129.29	122.80
69	A5	1360	U	N3-C2-O2	-9.27	115.72	122.20
69	A5	3342	C	N1-C2-O2	9.26	124.45	118.90
69	A5	1687	U	N3-C2-O2	-9.25	115.72	122.20
69	A5	3730	G	N7-C8-N9	9.25	117.72	113.10
69	A5	3510	U	O4'-C1'-N1	9.24	115.59	108.20
69	A5	1865	U	N1-C2-O2	9.23	129.26	122.80
69	A5	1149	C	C6-N1-C2	-9.23	116.61	120.30
81	AS	92	ASP	CB-CG-OD1	9.23	126.60	118.30
69	A5	201	U	C6-N1-C2	-9.22	115.47	121.00
69	A5	1068	C	C6-N1-C2	-9.21	116.62	120.30
69	A5	699	U	N1-C2-O2	9.21	129.25	122.80
69	A5	3891	U	N3-C2-O2	-9.20	115.76	122.20
69	A5	3592	C	N1-C2-O2	9.20	124.42	118.90
39	A7	67	G	N3-C2-N2	-9.20	113.46	119.90
69	A5	3472	A	C2-N3-C4	9.20	115.20	110.60
69	A5	3283	U	C2-N1-C1'	9.19	128.73	117.70
69	A5	296	C	C5-C6-N1	9.18	125.59	121.00
69	A5	1135	U	C5-C6-N1	9.18	127.29	122.70
69	A5	881	G	C4-N9-C1'	-9.18	114.56	126.50
69	A5	3949	U	N3-C2-O2	-9.17	115.78	122.20
69	A5	881	G	N3-C2-N2	-9.17	113.48	119.90
69	A5	3389	C	N1-C2-O2	9.17	124.40	118.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1383	A	OP1-P-O3'	9.16	125.35	105.20
69	A5	2151	A	C5-C6-N1	-9.16	113.12	117.70
69	A5	1527	C	C6-N1-C2	-9.15	116.64	120.30
69	A5	93	G	C8-N9-C4	-9.15	102.74	106.40
69	A5	2517	A	C2-N3-C4	-9.15	106.03	110.60
69	A5	3661	C	N1-C2-O2	9.15	124.39	118.90
69	A5	2160	C	N1-C2-O2	9.14	124.39	118.90
69	A5	1801	U	C5'-C4'-O4'	9.14	120.07	109.10
69	A5	754	A	C5-N7-C8	-9.14	99.33	103.90
69	A5	240	G	N7-C8-N9	9.13	117.66	113.10
69	A5	2162	C	C4-C5-C6	-9.12	112.84	117.40
69	A5	2751	A	O5'-P-OP1	-9.12	97.49	105.70
69	A5	2802	A	O5'-P-OP1	-9.11	97.50	105.70
70	B2	635	C	N3-C2-O2	-9.11	115.53	121.90
69	A5	1803	C	N3-C2-O2	-9.10	115.53	121.90
69	A5	2763	U	C2-N1-C1'	9.10	128.62	117.70
69	A5	3520	U	N3-C4-O4	-9.10	113.03	119.40
70	B2	14	C	C6-N1-C2	-9.09	116.66	120.30
69	A5	658	A	C2-N3-C4	9.08	115.14	110.60
69	A5	1631	U	C2-N1-C1'	9.08	128.60	117.70
69	A5	240	G	C5-N7-C8	-9.08	99.76	104.30
40	A8	27	C	N3-C2-O2	-9.08	115.55	121.90
69	A5	240	G	C8-N9-C4	-9.08	102.77	106.40
69	A5	1430	U	N3-C2-O2	-9.07	115.85	122.20
69	A5	2684	C	N1-C2-O2	9.07	124.34	118.90
70	B2	313	C	N1-C2-O2	9.06	124.34	118.90
69	A5	546	G	N9-C4-C5	-9.05	101.78	105.40
69	A5	1797	A	N7-C8-N9	9.03	118.32	113.80
69	A5	1086	C	N3-C2-O2	-9.03	115.58	121.90
69	A5	3758	G	C8-N9-C4	-9.03	102.79	106.40
69	A5	1389	C	N1-C2-O2	9.01	124.31	118.90
69	A5	1390	C	N1-C2-O2	9.01	124.31	118.90
69	A5	1390	C	N3-C2-O2	-9.01	115.59	121.90
69	A5	11	C	N1-C2-O2	9.01	124.30	118.90
69	A5	3730	G	O4'-C1'-N9	9.01	115.41	108.20
69	A5	3597	C	C6-N1-C2	-9.00	116.70	120.30
69	A5	775	U	N3-C2-O2	-9.00	115.90	122.20
69	A5	1866	G	C6-C5-N7	-8.98	125.01	130.40
69	A5	2091	A	C6-N1-C2	8.98	123.99	118.60
69	A5	787	C	N3-C4-N4	-8.97	111.72	118.00
69	A5	1981	A	C6-N1-C2	8.97	123.98	118.60
69	A5	553	A	C5-N7-C8	-8.96	99.42	103.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1108	G	C2-N3-C4	8.96	116.38	111.90
69	A5	1288	U	C2-N1-C1'	8.94	128.43	117.70
69	A5	1699	A	C2-N3-C4	8.94	115.07	110.60
69	A5	120	C	C6-N1-C2	-8.93	116.73	120.30
69	A5	3517	U	N1-C2-O2	8.93	129.05	122.80
69	A5	1384	C	N3-C2-O2	-8.93	115.65	121.90
69	A5	927	A	C2-N3-C4	8.93	115.06	110.60
69	A5	2171	U	C5-C6-N1	8.92	127.16	122.70
40	A8	84	U	N3-C2-O2	-8.91	115.96	122.20
70	B2	1596	C	N1-C2-O2	8.91	124.25	118.90
69	A5	545	U	N3-C2-O2	-8.91	115.96	122.20
69	A5	35	C	C6-N1-C2	-8.90	116.74	120.30
69	A5	3193	C	N1-C2-O2	8.90	124.24	118.90
69	A5	839	A	C4-N9-C1'	-8.90	110.28	126.30
69	A5	791	C	C6-N1-C2	-8.90	116.74	120.30
69	A5	1671	U	C4-C5-C6	-8.88	114.37	119.70
69	A5	699	U	C6-N1-C1'	-8.88	108.77	121.20
69	A5	881	G	N1-C6-O6	-8.88	114.57	119.90
39	A7	91	C	C6-N1-C2	-8.87	116.75	120.30
12	CS	89	GLY	N-CA-C	8.87	135.27	113.10
69	A5	1193	A	N3-C4-N9	-8.87	120.31	127.40
69	A5	1366	G	C2-N3-C4	-8.87	107.47	111.90
69	A5	1690	U	C6-N1-C2	-8.86	115.68	121.00
69	A5	1799	U	C4-C5-C6	-8.86	114.39	119.70
69	A5	1199	C	O5'-P-OP1	-8.85	97.73	105.70
69	A5	477	C	C6-N1-C1'	-8.85	110.18	120.80
69	A5	1172	G	O5'-P-OP1	-8.84	97.74	105.70
69	A5	440	U	O4'-C1'-N1	8.84	115.27	108.20
69	A5	1296	U	C5-C6-N1	8.82	127.11	122.70
69	A5	2186	C	C6-N1-C2	-8.82	116.77	120.30
69	A5	805	C	C6-N1-C2	-8.81	116.78	120.30
40	A8	27	C	N3-C4-C5	-8.81	118.38	121.90
70	B2	550	C	N1-C2-O2	8.81	124.18	118.90
69	A5	1198	U	N3-C2-O2	-8.80	116.04	122.20
69	A5	1566	U	P-O3'-C3'	8.80	130.26	119.70
69	A5	3738	U	N3-C2-O2	-8.79	116.04	122.20
69	A5	2127	C	N1-C2-O2	8.77	124.16	118.90
69	A5	1093	C	C5-C6-N1	8.77	125.39	121.00
69	A5	1379	U	O5'-P-OP1	-8.76	97.81	105.70
70	B2	550	C	C2-N1-C1'	8.76	128.44	118.80
69	A5	816	A	O5'-P-OP2	-8.75	97.82	105.70
69	A5	322	G	N3-C4-N9	8.75	131.25	126.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1169	C	C5-C6-N1	8.75	125.37	121.00
69	A5	1678	C	N3-C2-O2	-8.75	115.78	121.90
69	A5	1899	C	C6-N1-C2	-8.75	116.80	120.30
69	A5	1108	G	C4-N9-C1'	8.74	137.87	126.50
69	A5	2184	G	O5'-P-OP1	-8.74	97.83	105.70
69	A5	3540	G	N1-C6-O6	-8.74	114.66	119.90
69	A5	1542	C	C6-N1-C2	-8.74	116.81	120.30
69	A5	2159	C	N1-C2-O2	8.74	124.14	118.90
39	A7	47	C	N1-C2-O2	8.73	124.14	118.90
2	CL	159	GLU	C-N-CA	8.73	143.53	121.70
69	A5	1723	G	O4'-C1'-N9	8.73	115.18	108.20
40	A8	64	C	C5-C6-N1	8.72	125.36	121.00
69	A5	802	G	N1-C6-O6	-8.71	114.67	119.90
69	A5	1554	C	C6-N1-C2	-8.71	116.81	120.30
69	A5	3969	G	C4-C5-N7	8.71	114.28	110.80
69	A5	1529	C	N1-C2-O2	8.70	124.12	118.90
69	A5	1117	A	C2-N3-C4	8.70	114.95	110.60
69	A5	2684	C	C2-N1-C1'	8.70	128.37	118.80
69	A5	1176	A	N1-C2-N3	-8.69	124.95	129.30
69	A5	3198	C	C6-N1-C2	-8.70	116.82	120.30
69	A5	1379	U	C5-C6-N1	8.69	127.05	122.70
69	A5	1430	U	N1-C2-O2	8.69	128.88	122.80
69	A5	3281	G	N3-C4-N9	8.69	131.21	126.00
69	A5	811	G	C8-N9-C1'	8.68	138.28	127.00
69	A5	311	C	C6-N1-C2	-8.66	116.83	120.30
69	A5	1086	C	N1-C2-O2	8.66	124.10	118.90
69	A5	699	U	C5-C6-N1	8.66	127.03	122.70
69	A5	2692	U	C2-N1-C1'	8.66	128.09	117.70
69	A5	543	A	N1-C6-N6	8.66	123.80	118.60
69	A5	3880	A	C5-N7-C8	-8.66	99.57	103.90
69	A5	1079	U	N1-C2-O2	8.65	128.85	122.80
70	B2	313	C	C2-N1-C1'	8.63	128.30	118.80
69	A5	2038	A	N7-C8-N9	8.63	118.11	113.80
69	A5	445	C	N1-C2-O2	8.62	124.07	118.90
69	A5	2554	U	C5-C6-N1	8.62	127.01	122.70
69	A5	2224	A	C5-N7-C8	-8.61	99.59	103.90
69	A5	831	A	C2-N3-C4	8.61	114.90	110.60
69	A5	1589	A	N7-C8-N9	8.61	118.10	113.80
69	A5	3712	G	C8-N9-C4	8.61	109.84	106.40
69	A5	3847	U	C6-N1-C1'	-8.60	109.16	121.20
69	A5	3593	A	C8-N9-C4	-8.60	102.36	105.80
69	A5	1799	U	N1-C2-O2	8.60	128.82	122.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1288	U	N3-C2-O2	-8.59	116.19	122.20
41	Ag	271	LEU	CA-CB-CG	8.59	135.06	115.30
69	A5	3491	C	N3-C2-O2	-8.59	115.89	121.90
69	A5	803	A	O5'-P-OP2	-8.59	97.97	105.70
70	B2	1924	C	N1-C2-O2	8.59	124.05	118.90
69	A5	883	U	C5-C6-N1	8.58	126.99	122.70
69	A5	2127	C	C5-C6-N1	8.58	125.29	121.00
70	B2	915	U	N1-C2-O2	8.58	128.80	122.80
38	A9	24	G	C8-N9-C4	-8.57	102.97	106.40
69	A5	883	U	N1-C2-O2	8.57	128.80	122.80
69	A5	2155	A	C4-C5-N7	8.57	114.98	110.70
69	A5	1115	A	N7-C8-N9	8.57	118.08	113.80
69	A5	3569	C	N3-C2-O2	-8.57	115.90	121.90
69	A5	300	A	C8-N9-C4	-8.56	102.37	105.80
69	A5	1689	G	N3-C2-N2	-8.56	113.90	119.90
69	A5	105	A	C4-C5-N7	8.56	114.98	110.70
69	A5	2090	U	N1-C2-O2	8.55	128.78	122.80
69	A5	1680	U	O5'-P-OP1	-8.54	98.02	105.70
69	A5	2066	G	N7-C8-N9	8.54	117.37	113.10
69	A5	798	C	N1-C2-O2	8.53	124.02	118.90
69	A5	1122	U	C5-C4-O4	8.53	131.02	125.90
69	A5	3844	U	N3-C2-O2	-8.53	116.23	122.20
69	A5	884	U	C2-N1-C1'	8.53	127.93	117.70
69	A5	884	U	N1-C2-O2	8.53	128.77	122.80
69	A5	1130	U	C5-C6-N1	8.53	126.96	122.70
69	A5	1165	A	N9-C4-C5	8.53	109.21	105.80
69	A5	2692	U	N3-C2-O2	-8.53	116.23	122.20
69	A5	3675	A	C8-N9-C4	8.53	109.21	105.80
69	A5	663	U	C5-C4-O4	8.52	131.01	125.90
69	A5	1785	G	O5'-P-OP2	-8.52	98.03	105.70
69	A5	3677	U	N3-C2-O2	-8.52	116.23	122.20
70	B2	1187	U	C2-N1-C1'	8.52	127.92	117.70
39	A7	91	C	C5-C6-N1	8.52	125.26	121.00
69	A5	884	U	C5-C6-N1	8.52	126.96	122.70
40	A8	37	U	N3-C2-O2	-8.51	116.24	122.20
69	A5	3677	U	C2-N1-C1'	8.51	127.91	117.70
69	A5	374	C	C6-N1-C2	-8.50	116.90	120.30
69	A5	240	G	C4-C5-N7	8.49	114.20	110.80
69	A5	1220	U	N1-C2-O2	8.49	128.75	122.80
69	A5	1391	A	O5'-P-OP1	-8.48	98.07	105.70
70	B2	359	C	C5-C6-N1	8.47	125.24	121.00
69	A5	1294	U	O5'-P-OP1	8.47	120.86	110.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	866	C	N3-C2-O2	-8.46	115.97	121.90
69	A5	1338	U	N1-C2-O2	8.46	128.72	122.80
69	A5	2159	C	C6-N1-C2	-8.46	116.92	120.30
69	A5	2733	G	N3-C4-N9	8.46	131.07	126.00
69	A5	348	A	N1-C6-N6	-8.45	113.53	118.60
69	A5	439	U	N3-C4-O4	-8.44	113.49	119.40
69	A5	2066	G	C8-N9-C4	-8.44	103.02	106.40
69	A5	1027	A	N1-C2-N3	-8.43	125.08	129.30
69	A5	753	U	N3-C2-O2	-8.42	116.31	122.20
69	A5	1366	G	C5-N7-C8	-8.42	100.09	104.30
69	A5	2580	C	C6-N1-C2	-8.42	116.93	120.30
69	A5	2655	C	C6-N1-C2	-8.42	116.93	120.30
69	A5	1998	U	N3-C2-O2	-8.39	116.32	122.20
69	A5	2657	A	C2-N3-C4	-8.39	106.40	110.60
69	A5	746	G	N3-C4-C5	-8.38	124.41	128.60
69	A5	1366	G	C8-N9-C4	-8.38	103.05	106.40
35	CH	41	LEU	CB-CG-CD2	-8.38	96.75	111.00
69	A5	2676	U	C2-N1-C1'	8.38	127.76	117.70
70	B2	1978	C	C6-N1-C2	-8.38	116.95	120.30
69	A5	3378	U	N3-C2-O2	-8.37	116.34	122.20
69	A5	2194	G	OP2-P-O3'	8.37	123.62	105.20
69	A5	242	C	C6-N1-C2	-8.37	116.95	120.30
69	A5	1713	U	O4'-C1'-N1	8.37	114.89	108.20
69	A5	2091	A	C5-C6-N1	-8.35	113.52	117.70
69	A5	746	G	C2-N3-C4	8.35	116.07	111.90
69	A5	1609	U	C5-C6-N1	8.35	126.87	122.70
69	A5	1715	G	N3-C4-C5	8.35	132.77	128.60
69	A5	3463	U	C6-N1-C2	-8.34	116.00	121.00
69	A5	874	G	C4-N9-C1'	8.33	137.33	126.50
69	A5	2091	A	N3-C4-C5	8.33	132.63	126.80
69	A5	2177	G	N1-C6-O6	-8.33	114.90	119.90
69	A5	3846	U	OP1-P-O3'	8.33	123.53	105.20
69	A5	1629	C	C6-N1-C2	-8.33	116.97	120.30
69	A5	3936	A	C5-N7-C8	-8.33	99.74	103.90
69	A5	839	A	N7-C8-N9	-8.32	109.64	113.80
69	A5	3738	U	C2-N1-C1'	8.32	127.68	117.70
40	A8	6	U	C5-C6-N1	8.31	126.86	122.70
40	A8	10	C	C5-C6-N1	8.31	125.16	121.00
69	A5	1142	U	C5-C6-N1	8.30	126.85	122.70
69	A5	1801	U	C6-N1-C1'	8.30	132.82	121.20
69	A5	1079	U	O5'-P-OP1	-8.30	98.23	105.70
25	Cf	48	GLY	N-CA-C	8.30	133.84	113.10

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1656	U	N1-C2-O2	8.30	128.61	122.80
69	A5	2162	C	N1-C2-O2	8.30	123.88	118.90
69	A5	2087	C	N1-C2-O2	8.29	123.88	118.90
69	A5	1090	U	C6-N1-C2	-8.29	116.03	121.00
69	A5	306	C	C6-N1-C2	-8.28	116.99	120.30
69	A5	1542	C	N1-C2-O2	8.28	123.87	118.90
69	A5	1718	G	C6-C5-N7	-8.28	125.43	130.40
69	A5	1710	G	N1-C6-O6	8.28	124.87	119.90
69	A5	522	G	C4-N9-C1'	8.27	137.25	126.50
69	A5	422	G	O5'-P-OP1	-8.26	98.26	105.70
69	A5	555	U	N1-C2-O2	8.26	128.58	122.80
69	A5	1374	C	N3-C4-C5	8.26	125.20	121.90
69	A5	1390	C	C2-N1-C1'	8.26	127.89	118.80
69	A5	1793	C	C6-N1-C2	-8.26	117.00	120.30
69	A5	679	G	N3-C4-C5	-8.26	124.47	128.60
69	A5	2750	A	P-O3'-C3'	8.25	129.60	119.70
69	A5	1366	G	C8-N9-C1'	8.25	137.73	127.00
69	A5	2151	A	N1-C2-N3	-8.24	125.18	129.30
70	B2	878	C	C2-N1-C1'	8.24	127.87	118.80
69	A5	846	U	N3-C4-O4	-8.23	113.64	119.40
69	A5	2728	C	N3-C4-C5	8.22	125.19	121.90
70	B2	313	C	N3-C2-O2	-8.22	116.15	121.90
69	A5	1686	A	C2-N3-C4	-8.22	106.49	110.60
69	A5	2170	C	N3-C2-O2	-8.22	116.15	121.90
70	B2	1111	U	N3-C2-O2	-8.22	116.45	122.20
39	A7	47	C	N3-C2-O2	-8.21	116.15	121.90
70	B2	1403	C	N1-C2-O2	8.21	123.83	118.90
70	B2	359	C	C6-N1-C2	-8.21	117.02	120.30
69	A5	1529	C	C2-N1-C1'	8.20	127.81	118.80
69	A5	2584	G	C4-N9-C1'	8.19	137.15	126.50
69	A5	1784	A	P-O3'-C3'	8.19	129.53	119.70
70	B2	1650	G	N3-C4-N9	8.19	130.91	126.00
69	A5	2755	G	N9-C4-C5	-8.19	102.13	105.40
69	A5	498	U	C5-C6-N1	8.18	126.79	122.70
69	A5	910	C	N1-C2-O2	8.18	123.81	118.90
69	A5	3542	C	C5-C6-N1	8.18	125.09	121.00
69	A5	1318	A	C4-C5-N7	8.18	114.79	110.70
69	A5	1574	A	C2-N3-C4	8.18	114.69	110.60
69	A5	1892	C	N1-C2-O2	8.17	123.80	118.90
69	A5	3246	G	N3-C4-N9	-8.17	121.10	126.00
69	A5	3936	A	O4'-C1'-N9	8.17	114.73	108.20
69	A5	352	U	N3-C2-O2	-8.17	116.48	122.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	868	A	N7-C8-N9	8.16	117.88	113.80
69	A5	546	G	C5-N7-C8	-8.16	100.22	104.30
69	A5	2796	G	O4'-C1'-N9	8.16	114.73	108.20
69	A5	2734	A	C6-C5-N7	-8.15	126.59	132.30
35	CH	49	ASP	CB-CG-OD1	8.15	125.64	118.30
69	A5	3245	U	C2-N1-C1'	8.15	127.48	117.70
69	A5	1784	A	C8-N9-C4	8.15	109.06	105.80
69	A5	3258	C	C5-C4-N4	8.14	125.90	120.20
69	A5	128	C	C6-N1-C2	-8.14	117.04	120.30
69	A5	2756	C	N1-C2-O2	8.14	123.79	118.90
69	A5	3756	A	C2-N3-C4	8.14	114.67	110.60
69	A5	716	C	C6-N1-C2	-8.14	117.04	120.30
69	A5	3405	U	N1-C2-O2	8.13	128.49	122.80
40	A8	20	C	N3-C2-O2	-8.13	116.21	121.90
69	A5	2515	C	N3-C2-O2	-8.12	116.22	121.90
69	A5	35	C	C2-N1-C1'	8.12	127.73	118.80
69	A5	1021	U	O5'-P-OP2	-8.12	98.40	105.70
69	A5	1077	C	C6-N1-C2	-8.11	117.06	120.30
69	A5	3263	C	C6-N1-C2	-8.11	117.06	120.30
69	A5	2035	C	N1-C2-O2	8.10	123.76	118.90
69	A5	833	U	N1-C2-O2	8.09	128.47	122.80
69	A5	1699	A	N1-C2-N3	8.09	133.35	129.30
69	A5	2743	C	C6-N1-C2	-8.09	117.06	120.30
69	A5	1712	C	C5-C6-N1	8.09	125.05	121.00
69	A5	1529	C	C6-N1-C2	-8.09	117.07	120.30
69	A5	811	G	C8-N9-C4	-8.08	103.17	106.40
69	A5	2800	C	N1-C2-O2	8.08	123.75	118.90
69	A5	3774	U	N1-C2-O2	8.07	128.45	122.80
69	A5	1702	G	N3-C2-N2	-8.07	114.25	119.90
69	A5	2785	C	C6-N1-C2	-8.07	117.07	120.30
69	A5	2734	A	C5-C6-N6	-8.07	117.25	123.70
69	A5	1092	U	O5'-P-OP2	-8.06	98.44	105.70
69	A5	746	G	C8-N9-C4	-8.06	103.17	106.40
69	A5	1156	U	C5-C6-N1	8.06	126.73	122.70
69	A5	1686	A	N3-C4-C5	8.05	132.44	126.80
38	A9	14	U	N3-C2-O2	-8.05	116.57	122.20
69	A5	2623	C	N1-C2-O2	8.05	123.73	118.90
69	A5	1150	G	C8-N9-C4	-8.04	103.18	106.40
69	A5	2728	C	C2-N3-C4	-8.04	115.88	119.90
69	A5	1384	C	O5'-P-OP1	-8.04	98.46	105.70
69	A5	49	A	C4-C5-C6	-8.03	112.98	117.00
1	CO	4	LEU	CA-CB-CG	8.02	133.75	115.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	AE	12	LEU	CA-CB-CG	8.02	133.75	115.30
69	A5	1220	U	N3-C2-O2	-8.02	116.59	122.20
69	A5	3299	U	C5-C6-N1	8.01	126.71	122.70
69	A5	1092	U	N3-C2-O2	-8.01	116.59	122.20
69	A5	1652	U	C5-C6-N1	8.01	126.70	122.70
69	A5	655	C	N3-C2-O2	-8.00	116.30	121.90
69	A5	3569	C	C6-N1-C2	-8.00	117.10	120.30
69	A5	3713	C	C5-C4-N4	-8.00	114.60	120.20
70	B2	1648	C	C2-N1-C1'	8.00	127.60	118.80
69	A5	1547	A	O5'-P-OP2	-8.00	98.50	105.70
69	A5	1713	U	N3-C2-O2	-8.00	116.60	122.20
69	A5	3233	C	C5-C6-N1	8.00	125.00	121.00
69	A5	1736	G	O4'-C1'-N9	7.99	114.59	108.20
69	A5	3526	C	C6-N1-C2	-7.99	117.10	120.30
69	A5	1000	G	N3-C4-N9	7.99	130.79	126.00
69	A5	1540	U	C5-C6-N1	7.98	126.69	122.70
69	A5	1542	C	N3-C2-O2	-7.98	116.31	121.90
69	A5	1644	C	C6-N1-C2	-7.97	117.11	120.30
21	CB	323	TYR	CA-CB-CG	7.96	128.53	113.40
55	AZ	95	LEU	CA-CB-CG	7.96	133.62	115.30
69	A5	752	U	C6-N1-C1'	7.96	132.34	121.20
39	A7	78	C	C5-C6-N1	7.96	124.98	121.00
69	A5	1864	U	N3-C2-O2	-7.96	116.63	122.20
70	B2	915	U	N3-C2-O2	-7.96	116.63	122.20
69	A5	48	U	N3-C2-O2	-7.96	116.63	122.20
69	A5	425	A	N1-C2-N3	-7.95	125.32	129.30
69	A5	2507	C	N3-C2-O2	-7.95	116.33	121.90
70	B2	1033	U	N1-C2-O2	7.95	128.37	122.80
69	A5	424	G	N1-C6-O6	-7.95	115.13	119.90
69	A5	631	A	C2-N3-C4	7.95	114.58	110.60
69	A5	1569	U	N3-C2-O2	-7.95	116.64	122.20
69	A5	3872	C	C6-N1-C2	-7.95	117.12	120.30
69	A5	46	C	O5'-P-OP1	-7.94	98.55	105.70
70	B2	1650	G	C4-N9-C1'	7.94	136.82	126.50
69	A5	2758	U	O5'-P-OP1	-7.94	98.56	105.70
69	A5	1083	A	C8-N9-C4	-7.93	102.63	105.80
69	A5	778	C	C6-N1-C2	-7.93	117.13	120.30
69	A5	3464	G	N3-C2-N2	-7.92	114.35	119.90
69	A5	881	G	C5-C6-O6	7.92	133.35	128.60
69	A5	1745	G	O4'-C1'-N9	7.92	114.53	108.20
69	A5	1166	U	O5'-P-OP2	-7.92	98.58	105.70
69	A5	19	C	C6-N1-C2	-7.92	117.13	120.30

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1715	G	C8-N9-C4	-7.91	103.24	106.40
69	A5	207	C	N1-C2-O2	7.90	123.64	118.90
69	A5	1206	G	O4'-C1'-N9	7.90	114.52	108.20
70	B2	915	U	C2-N1-C1'	7.90	127.17	117.70
69	A5	1313	A	C5-C6-N1	-7.89	113.75	117.70
69	A5	3398	C	C5-C6-N1	7.89	124.95	121.00
69	A5	3716	C	N3-C2-O2	-7.89	116.38	121.90
69	A5	1748	C	N3-C4-C5	7.88	125.05	121.90
69	A5	3477	A	C6-C5-N7	7.87	137.81	132.30
69	A5	3607	C	C6-N1-C2	-7.87	117.15	120.30
69	A5	281	C	N3-C2-O2	-7.87	116.39	121.90
69	A5	1176	A	C6-N1-C2	7.87	123.32	118.60
69	A5	2755	G	C8-N9-C4	7.87	109.55	106.40
69	A5	1866	G	N1-C6-O6	7.87	124.62	119.90
69	A5	241	C	N1-C2-O2	7.86	123.62	118.90
69	A5	1793	C	C5-C6-N1	7.86	124.93	121.00
69	A5	874	G	C8-N9-C4	-7.86	103.25	106.40
70	B2	1069	U	N1-C2-O2	7.86	128.30	122.80
69	A5	1776	U	N3-C2-O2	-7.86	116.70	122.20
69	A5	3751	C	C6-N1-C1'	-7.86	111.37	120.80
69	A5	1109	G	O5'-P-OP1	-7.85	98.63	105.70
69	A5	1115	A	C4-C5-N7	7.85	114.63	110.70
69	A5	2194	G	N3-C4-C5	-7.85	124.67	128.60
69	A5	3517	U	N3-C2-O2	-7.85	116.70	122.20
69	A5	11	C	N3-C2-O2	-7.85	116.41	121.90
69	A5	1197	A	C4-C5-C6	-7.84	113.08	117.00
69	A5	1531	U	N3-C4-O4	-7.84	113.91	119.40
40	A8	26	U	C6-N1-C2	-7.84	116.29	121.00
69	A5	1142	U	N3-C4-C5	7.84	119.31	114.60
69	A5	1369	C	N1-C2-O2	7.84	123.61	118.90
69	A5	874	G	C5-N7-C8	-7.84	100.38	104.30
69	A5	984	U	N3-C2-O2	-7.84	116.71	122.20
69	A5	3643	C	N1-C2-O2	7.84	123.60	118.90
69	A5	2793	C	C6-N1-C2	-7.84	117.17	120.30
69	A5	89	A	OP1-P-O3'	7.83	122.43	105.20
69	A5	798	C	C5-C4-N4	7.83	125.68	120.20
69	A5	867	U	C5-C6-N1	7.82	126.61	122.70
69	A5	1688	A	P-O3'-C3'	7.82	129.09	119.70
69	A5	2755	G	C5-C6-O6	-7.82	123.91	128.60
70	B2	1069	U	N3-C2-O2	-7.82	116.72	122.20
69	A5	1699	A	C5-N7-C8	7.82	107.81	103.90
69	A5	910	C	N3-C4-C5	7.82	125.03	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1389	C	N3-C2-O2	-7.82	116.43	121.90
69	A5	3671	C	N1-C2-O2	7.82	123.59	118.90
69	A5	3592	C	N3-C2-O2	-7.81	116.43	121.90
69	A5	1080	G	O4'-C1'-N9	7.81	114.45	108.20
69	A5	2684	C	N3-C2-O2	-7.81	116.43	121.90
69	A5	3471	A	C8-N9-C4	7.81	108.92	105.80
69	A5	3128	U	C5-C6-N1	7.81	126.61	122.70
69	A5	746	G	C4-N9-C1'	7.81	136.65	126.50
69	A5	1313	A	N3-C4-C5	7.81	132.26	126.80
69	A5	982	C	N3-C2-O2	-7.80	116.44	121.90
69	A5	1296	U	C6-N1-C2	-7.80	116.32	121.00
69	A5	1498	C	N1-C2-O2	7.80	123.58	118.90
69	A5	839	A	C4-C5-C6	-7.80	113.10	117.00
69	A5	1553	C	O5'-P-OP1	-7.80	98.68	105.70
69	A5	1143	U	C5-C4-O4	7.79	130.57	125.90
69	A5	2087	C	N3-C2-O2	-7.78	116.45	121.90
70	B2	1107	A	C8-N9-C4	-7.78	102.69	105.80
69	A5	1799	U	C5-C6-N1	7.78	126.59	122.70
69	A5	1264	U	N1-C2-O2	7.77	128.24	122.80
69	A5	58	G	C2-N3-C4	7.77	115.78	111.90
69	A5	800	C	C6-N1-C2	-7.77	117.19	120.30
70	B2	1087	C	C2-N1-C1'	7.77	127.34	118.80
69	A5	1543	C	N1-C2-O2	7.76	123.56	118.90
69	A5	3936	A	N7-C8-N9	7.76	117.68	113.80
69	A5	2714	U	C6-N1-C2	-7.76	116.34	121.00
69	A5	2744	C	C2-N1-C1'	7.76	127.34	118.80
69	A5	2731	G	O5'-P-OP1	-7.75	98.72	105.70
69	A5	2523	A	C8-N9-C4	-7.75	102.70	105.80
69	A5	1134	G	N1-C6-O6	-7.75	115.25	119.90
69	A5	34	C	C5-C6-N1	7.75	124.88	121.00
40	A8	112	C	C6-N1-C2	-7.74	117.20	120.30
69	A5	130	C	N1-C2-O2	7.74	123.55	118.90
68	Cz	103	LEU	CA-CB-CG	7.74	133.10	115.30
69	A5	663	U	N1-C2-O2	7.73	128.21	122.80
69	A5	880	A	N1-C2-N3	-7.73	125.44	129.30
69	A5	1315	A	C5-N7-C8	-7.73	100.03	103.90
69	A5	2093	U	P-O3'-C3'	7.72	128.97	119.70
70	B2	344	C	C6-N1-C2	-7.72	117.21	120.30
69	A5	1998	U	C2-N1-C1'	7.72	126.97	117.70
69	A5	2054	U	C2-N1-C1'	7.72	126.97	117.70
69	A5	3613	G	C5-N7-C8	-7.72	100.44	104.30
29	CC	195	GLY	C-N-CA	7.72	140.99	121.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	A7	52	U	N3-C2-O2	-7.72	116.80	122.20
40	A8	20	C	N1-C2-O2	7.71	123.53	118.90
69	A5	2734	A	N3-C4-N9	7.71	133.57	127.40
69	A5	1529	C	C5-C6-N1	7.71	124.86	121.00
69	A5	1865	U	N3-C2-O2	-7.71	116.80	122.20
69	A5	1597	A	C8-N9-C4	-7.70	102.72	105.80
69	A5	1597	A	N7-C8-N9	7.70	117.65	113.80
69	A5	3460	C	C6-N1-C2	-7.70	117.22	120.30
70	B2	932	U	C6-N1-C1'	-7.70	110.42	121.20
70	B2	1163	C	C5-C6-N1	7.70	124.85	121.00
69	A5	372	U	N3-C2-O2	-7.69	116.82	122.20
69	A5	1795	A	N1-C6-N6	7.69	123.22	118.60
69	A5	2789	U	N1-C2-O2	7.69	128.19	122.80
69	A5	2516	U	C5-C6-N1	-7.69	118.86	122.70
69	A5	558	C	N1-C2-O2	7.68	123.51	118.90
69	A5	692	G	C4-N9-C1'	7.68	136.49	126.50
69	A5	752	U	O5'-P-OP2	-7.68	98.79	105.70
69	A5	1383	A	N1-C6-N6	7.68	123.21	118.60
69	A5	1423	C	N1-C2-O2	7.68	123.51	118.90
69	A5	1596	A	C2-N3-C4	7.68	114.44	110.60
69	A5	3365	G	N7-C8-N9	7.68	116.94	113.10
69	A5	3415	U	C5-C6-N1	7.68	126.54	122.70
69	A5	3472	A	P-O3'-C3'	7.68	128.92	119.70
69	A5	3226	A	N3-C4-N9	7.68	133.54	127.40
69	A5	1592	U	C2-N1-C1'	7.67	126.91	117.70
69	A5	2734	A	C4-C5-N7	7.67	114.54	110.70
69	A5	1718	G	C4-C5-C6	7.67	123.40	118.80
69	A5	2174	A	O4'-C1'-N9	7.67	114.33	108.20
69	A5	1774	C	C5-C6-N1	7.67	124.83	121.00
69	A5	3350	U	O5'-P-OP2	-7.66	98.81	105.70
69	A5	1318	A	N1-C6-N6	7.66	123.20	118.60
69	A5	281	C	N1-C2-O2	7.66	123.50	118.90
69	A5	3368	C	C2-N1-C1'	7.66	127.22	118.80
69	A5	1347	A	C8-N9-C4	7.66	108.86	105.80
69	A5	3671	C	C6-N1-C2	-7.66	117.24	120.30
69	A5	786	C	C6-N1-C2	-7.65	117.24	120.30
1	CO	134	ASP	CB-CG-OD1	7.65	125.19	118.30
69	A5	1075	G	N9-C4-C5	-7.65	102.34	105.40
69	A5	3192	C	C6-N1-C2	-7.65	117.24	120.30
69	A5	856	A	N1-C6-N6	7.64	123.19	118.60
69	A5	1974	U	N3-C2-O2	-7.64	116.85	122.20
69	A5	3514	C	N3-C2-O2	-7.64	116.55	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	813	C	C6-N1-C2	-7.64	117.24	120.30
69	A5	881	G	C4-C5-C6	-7.64	114.22	118.80
69	A5	119	G	C8-N9-C4	-7.63	103.35	106.40
69	A5	3413	C	N3-C4-N4	-7.63	112.66	118.00
69	A5	1803	C	O4'-C1'-N1	7.63	114.30	108.20
69	A5	3245	U	C5-C6-N1	7.63	126.51	122.70
69	A5	458	A	C2-N3-C4	7.62	114.41	110.60
69	A5	778	C	N1-C2-O2	7.62	123.47	118.90
69	A5	3471	A	N9-C4-C5	-7.62	102.75	105.80
69	A5	1115	A	N3-C4-C5	7.62	132.13	126.80
69	A5	1197	A	C5-C6-N6	7.62	129.80	123.70
69	A5	1588	A	N3-C4-C5	-7.62	121.47	126.80
70	B2	1090	A	O4'-C1'-N9	7.62	114.30	108.20
69	A5	201	U	N1-C2-O2	7.62	128.13	122.80
69	A5	2714	U	N3-C2-O2	-7.62	116.87	122.20
69	A5	1389	C	C6-N1-C2	-7.62	117.25	120.30
69	A5	1553	C	C6-N1-C2	-7.61	117.25	120.30
69	A5	1997	C	C2-N1-C1'	7.61	127.17	118.80
69	A5	3463	U	N3-C2-O2	-7.61	116.87	122.20
69	A5	3758	G	C4-N9-C1'	7.61	136.40	126.50
69	A5	2507	C	N1-C2-O2	7.61	123.47	118.90
69	A5	2512	U	O5'-P-OP2	-7.61	98.85	105.70
69	A5	2744	C	N3-C2-O2	-7.60	116.58	121.90
69	A5	1155	U	N3-C2-O2	-7.60	116.88	122.20
69	A5	2194	G	C5-C6-N1	7.60	115.30	111.50
69	A5	3891	U	C6-N1-C1'	-7.60	110.56	121.20
40	A8	11	G	N1-C6-O6	-7.60	115.34	119.90
69	A5	754	A	N7-C8-N9	7.60	117.60	113.80
69	A5	833	U	N3-C2-O2	-7.60	116.88	122.20
70	B2	1216	C	C6-N1-C2	-7.60	117.26	120.30
69	A5	60	G	O5'-P-OP2	-7.59	98.87	105.70
69	A5	692	G	N3-C4-N9	7.59	130.56	126.00
69	A5	2532	U	C6-N1-C2	-7.59	116.45	121.00
69	A5	32	C	N3-C2-O2	-7.59	116.59	121.90
69	A5	105	A	N7-C8-N9	7.59	117.59	113.80
69	A5	3347	G	C5-C6-N1	7.59	115.29	111.50
69	A5	2786	U	N3-C2-O2	-7.58	116.89	122.20
69	A5	1355	C	C4-C5-C6	-7.58	113.61	117.40
69	A5	1726	G	C4-C5-N7	7.58	113.83	110.80
69	A5	305	G	C8-N9-C4	-7.58	103.37	106.40
69	A5	1157	C	C6-N1-C2	-7.58	117.27	120.30
69	A5	1774	C	C6-N1-C2	-7.57	117.27	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3756	A	N1-C6-N6	-7.57	114.06	118.60
69	A5	2796	G	N9-C4-C5	-7.57	102.37	105.40
69	A5	884	U	N3-C2-O2	-7.57	116.91	122.20
69	A5	3258	C	C2-N1-C1'	7.56	127.11	118.80
69	A5	3891	U	O4'-C1'-N1	7.55	114.24	108.20
69	A5	3932	U	C2-N1-C1'	7.55	126.77	117.70
70	B2	878	C	N3-C2-O2	-7.55	116.61	121.90
69	A5	997	U	N3-C2-O2	-7.55	116.92	122.20
69	A5	1614	A	N7-C8-N9	7.55	117.57	113.80
69	A5	3606	G	N3-C4-C5	-7.55	124.83	128.60
69	A5	3471	A	OP2-P-O3'	7.54	121.79	105.20
69	A5	3402	C	C6-N1-C1'	7.54	129.84	120.80
69	A5	880	A	C6-N1-C2	7.54	123.12	118.60
69	A5	1997	C	N3-C2-O2	-7.53	116.63	121.90
69	A5	1383	A	C5-C6-N6	-7.53	117.68	123.70
69	A5	3596	A	N7-C8-N9	7.53	117.56	113.80
3	CV	51	ARG	NE-CZ-NH1	7.52	124.06	120.30
69	A5	3540	G	C5-C6-O6	7.52	133.11	128.60
69	A5	163	A	N1-C6-N6	-7.52	114.09	118.60
69	A5	242	C	C2-N1-C1'	7.51	127.06	118.80
69	A5	284	A	O5'-P-OP1	-7.51	98.94	105.70
69	A5	1060	G	N3-C4-N9	7.51	130.50	126.00
69	A5	3758	G	N3-C4-N9	7.51	130.50	126.00
69	A5	3296	C	C6-N1-C2	-7.50	117.30	120.30
69	A5	910	C	N3-C2-O2	-7.50	116.65	121.90
69	A5	775	U	C6-N1-C2	-7.50	116.50	121.00
69	A5	3514	C	C6-N1-C2	-7.50	117.30	120.30
69	A5	778	C	N3-C2-O2	-7.50	116.65	121.90
69	A5	1127	C	C6-N1-C2	-7.49	117.30	120.30
69	A5	852	C	C5-C6-N1	7.48	124.74	121.00
69	A5	1111	C	C6-N1-C2	-7.48	117.31	120.30
69	A5	3841	C	N1-C1'-C2'	7.48	123.73	114.00
69	A5	2793	C	C5-C6-N1	7.48	124.74	121.00
69	A5	3774	U	N3-C2-O2	-7.48	116.97	122.20
69	A5	1951	C	N1-C2-O2	7.47	123.38	118.90
69	A5	1195	U	N3-C2-O2	-7.47	116.97	122.20
69	A5	3362	G	C8-N9-C4	-7.47	103.41	106.40
69	A5	1183	U	C6-N1-C2	-7.47	116.52	121.00
69	A5	2187	U	N3-C2-O2	-7.47	116.97	122.20
69	A5	3755	A	N9-C4-C5	7.46	108.79	105.80
70	B2	1765	U	OP2-P-O3'	7.46	121.61	105.20
69	A5	2225	A	N1-C2-N3	-7.46	125.57	129.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	39	A	N7-C8-N9	7.46	117.53	113.80
69	A5	3297	C	N1-C2-O2	7.46	123.38	118.90
69	A5	2724	C	N3-C4-C5	7.45	124.88	121.90
69	A5	3477	A	C4-C5-C6	-7.45	113.28	117.00
69	A5	3494	C	C6-N1-C2	-7.45	117.32	120.30
69	A5	38	A	C2-N3-C4	7.45	114.32	110.60
69	A5	2165	C	C4-C5-C6	7.45	121.12	117.40
69	A5	1013	G	N1-C6-O6	-7.45	115.43	119.90
69	A5	2187	U	N1-C2-O2	7.44	128.01	122.80
69	A5	3283	U	N3-C2-O2	-7.44	116.99	122.20
70	B2	1596	C	C6-N1-C1'	-7.44	111.87	120.80
69	A5	3756	A	O4'-C1'-N9	7.44	114.15	108.20
69	A5	1086	C	C6-N1-C2	-7.44	117.33	120.30
69	A5	3503	G	N1-C6-O6	-7.44	115.44	119.90
69	A5	2127	C	N3-C2-O2	-7.43	116.70	121.90
69	A5	2773	G	C6-C5-N7	7.43	134.86	130.40
69	A5	3846	U	C5-C6-N1	7.43	126.42	122.70
69	A5	431	C	C6-N1-C2	-7.43	117.33	120.30
69	A5	3761	U	O4'-C1'-N1	7.43	114.15	108.20
29	CC	365	LEU	CA-CB-CG	7.42	132.38	115.30
69	A5	1156	U	C6-N1-C2	-7.42	116.55	121.00
40	A8	5	C	C6-N1-C2	-7.42	117.33	120.30
69	A5	1142	U	C4-C5-C6	-7.41	115.25	119.70
69	A5	2731	G	N1-C6-O6	-7.41	115.45	119.90
69	A5	3226	A	N3-C4-C5	-7.41	121.61	126.80
69	A5	3671	C	C2-N1-C1'	7.41	126.95	118.80
69	A5	800	C	C5-C6-N1	7.41	124.70	121.00
69	A5	813	C	N3-C4-N4	7.41	123.19	118.00
69	A5	2514	U	N3-C2-O2	-7.41	117.02	122.20
69	A5	788	C	N1-C2-O2	7.41	123.34	118.90
39	A7	87	G	N1-C6-O6	-7.40	115.46	119.90
69	A5	1592	U	C6-N1-C2	-7.40	116.56	121.00
70	B2	315	C	N3-C2-O2	-7.40	116.72	121.90
69	A5	339	C	C6-N1-C2	-7.40	117.34	120.30
69	A5	692	G	N3-C4-C5	-7.40	124.90	128.60
70	B2	315	C	C5-C6-N1	7.40	124.70	121.00
70	B2	1187	U	N1-C2-O2	7.39	127.98	122.80
69	A5	1599	C	C6-N1-C2	-7.39	117.34	120.30
69	A5	1627	U	C2-N1-C1'	7.39	126.57	117.70
69	A5	1656	U	N3-C2-O2	-7.39	117.03	122.20
69	A5	1672	A	N1-C6-N6	-7.39	114.17	118.60
69	A5	476	U	N3-C2-O2	-7.38	117.03	122.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	152	A	O5'-P-OP1	-7.38	99.06	105.70
69	A5	1313	A	N7-C8-N9	7.38	117.49	113.80
69	A5	1319	A	N1-C2-N3	-7.38	125.61	129.30
69	A5	3514	C	OP2-P-O3'	7.38	121.44	105.20
69	A5	854	U	N3-C2-O2	-7.38	117.03	122.20
69	A5	2711	C	C6-N1-C2	-7.38	117.35	120.30
69	A5	3807	G	N3-C4-N9	7.38	130.43	126.00
69	A5	1297	G	C8-N9-C1'	-7.38	117.41	127.00
69	A5	3675	A	C4-N9-C1'	-7.38	113.03	126.30
69	A5	1721	C	N1-C2-O2	7.37	123.32	118.90
69	A5	3671	C	N3-C2-O2	-7.37	116.74	121.90
70	B2	1650	G	C8-N9-C1'	-7.37	117.41	127.00
40	A8	24	G	N1-C6-O6	-7.37	115.48	119.90
69	A5	1865	U	C6-N1-C2	-7.37	116.58	121.00
69	A5	3132	C	C5-C6-N1	7.37	124.68	121.00
69	A5	48	U	N1-C2-O2	7.36	127.95	122.80
69	A5	3675	A	C5-C6-N6	7.36	129.59	123.70
69	A5	3368	C	N1-C2-O2	7.36	123.32	118.90
69	A5	794	G	C5-C6-N1	7.36	115.18	111.50
69	A5	305	G	N7-C8-N9	7.36	116.78	113.10
69	A5	3758	G	N7-C8-N9	7.36	116.78	113.10
69	A5	1325	C	C6-N1-C1'	-7.35	111.98	120.80
69	A5	3727	A	C8-N9-C4	7.35	108.74	105.80
69	A5	240	G	C6-C5-N7	-7.35	125.99	130.40
69	A5	1570	U	N1-C2-O2	7.35	127.94	122.80
69	A5	1037	A	O5'-P-OP2	-7.34	99.09	105.70
69	A5	1738	U	C2-N3-C4	-7.34	122.59	127.00
69	A5	228	C	C5-C6-N1	7.34	124.67	121.00
39	A7	52	U	N1-C2-O2	7.34	127.94	122.80
69	A5	3413	C	N3-C4-C5	7.33	124.83	121.90
15	CX	186	VAL	C-N-CD	-7.33	104.47	120.60
69	A5	281	C	C6-N1-C2	-7.33	117.37	120.30
69	A5	1386	U	O5'-P-OP1	-7.33	99.10	105.70
69	A5	2497	C	C5-C6-N1	7.33	124.67	121.00
40	A8	19	A	O5'-P-OP2	-7.33	99.10	105.70
69	A5	1554	C	O5'-P-OP1	-7.33	99.10	105.70
69	A5	66	A	N7-C8-N9	7.33	117.47	113.80
69	A5	240	G	O4'-C1'-N9	7.32	114.06	108.20
69	A5	1193	A	P-O3'-C3'	7.32	128.49	119.70
69	A5	981	C	N1-C2-O2	7.32	123.29	118.90
69	A5	2559	C	C6-N1-C2	-7.32	117.37	120.30
69	A5	3300	U	C5-C6-N1	7.32	126.36	122.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	100	G	C2-N3-C4	7.31	115.56	111.90
69	A5	1713	U	C5'-C4'-O4'	7.31	117.87	109.10
69	A5	3316	U	C6-N1-C2	-7.31	116.61	121.00
69	A5	1366	G	N9-C4-C5	7.30	108.32	105.40
69	A5	3491	C	N1-C2-O2	7.30	123.28	118.90
69	A5	3969	G	C4-N9-C1'	7.30	135.99	126.50
40	A8	84	U	C5-C6-N1	7.30	126.35	122.70
69	A5	2708	C	N3-C2-O2	-7.30	116.79	121.90
69	A5	1165	A	N1-C6-N6	-7.30	114.22	118.60
69	A5	1566	U	OP2-P-O3'	7.29	121.25	105.20
69	A5	2798	C	C6-N1-C2	-7.29	117.38	120.30
69	A5	1715	G	N1-C2-N2	7.29	122.76	116.20
69	A5	1801	U	C5-C6-N1	7.29	126.34	122.70
40	A8	94	C	N1-C2-O2	7.29	123.27	118.90
69	A5	3880	A	C4-C5-N7	7.29	114.34	110.70
69	A5	3448	U	N1-C2-O2	7.28	127.90	122.80
69	A5	94	C	N3-C2-O2	-7.28	116.81	121.90
69	A5	3661	C	N3-C2-O2	-7.28	116.81	121.90
69	A5	1258	C	N1-C2-O2	7.27	123.26	118.90
69	A5	1678	C	C5-C6-N1	7.27	124.64	121.00
69	A5	2783	C	C5-C4-N4	7.27	125.29	120.20
69	A5	309	C	C6-N1-C2	-7.27	117.39	120.30
69	A5	1718	G	N3-C4-N9	7.27	130.36	126.00
69	A5	1150	G	N7-C8-N9	7.27	116.73	113.10
69	A5	1366	G	C6-N1-C2	7.27	129.46	125.10
69	A5	543	A	C5-N7-C8	-7.27	100.27	103.90
69	A5	291	U	C5-C6-N1	7.26	126.33	122.70
69	A5	812	U	C5-C6-N1	7.26	126.33	122.70
69	A5	3464	G	C8-N9-C4	-7.26	103.50	106.40
39	A7	119	C	C6-N1-C2	-7.26	117.40	120.30
69	A5	301	U	C2-N1-C1'	7.25	126.41	117.70
69	A5	522	G	C8-N9-C1'	-7.25	117.57	127.00
69	A5	754	A	N3-C4-C5	7.25	131.88	126.80
69	A5	1173	U	O5'-P-OP1	-7.25	99.17	105.70
69	A5	1699	A	C4-C5-C6	-7.25	113.38	117.00
69	A5	3714	U	C6-N1-C1'	-7.25	111.05	121.20
69	A5	1303	C	N1-C2-O2	7.25	123.25	118.90
69	A5	1095	G	C5-N7-C8	-7.25	100.68	104.30
70	B2	1968	C	C6-N1-C2	-7.25	117.40	120.30
69	A5	1998	U	N1-C2-O2	7.25	127.87	122.80
69	A5	2038	A	C5-N7-C8	-7.25	100.28	103.90
69	A5	653	U	C5-C4-O4	-7.24	121.56	125.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1355	C	C5-C6-N1	7.24	124.62	121.00
69	A5	811	G	N1-C6-O6	-7.24	115.56	119.90
69	A5	3445	C	C6-N1-C2	-7.24	117.41	120.30
69	A5	1155	U	N1-C2-O2	7.24	127.86	122.80
70	B2	635	C	C6-N1-C2	-7.24	117.41	120.30
14	CP	82	ARG	NE-CZ-NH1	-7.23	116.68	120.30
69	A5	746	G	N3-C4-N9	7.23	130.34	126.00
29	CC	364	GLU	C-N-CA	7.23	139.78	121.70
69	A5	3569	C	C6-N1-C1'	-7.23	112.12	120.80
69	A5	1083	A	N7-C8-N9	7.22	117.41	113.80
69	A5	1752	G	N9-C4-C5	7.22	108.29	105.40
69	A5	1866	G	N3-C4-N9	7.22	130.34	126.00
69	A5	2227	U	N3-C2-O2	-7.22	117.14	122.20
69	A5	2525	C	N1-C2-O2	7.22	123.23	118.90
70	B2	1163	C	C6-N1-C2	-7.22	117.41	120.30
69	A5	3795	G	C4-N9-C1'	7.22	135.88	126.50
69	A5	1329	G	C4-N9-C1'	7.22	135.88	126.50
69	A5	3630	C	C6-N1-C2	-7.22	117.41	120.30
69	A5	3677	U	C6-N1-C1'	-7.21	111.10	121.20
69	A5	3712	G	C4-N9-C1'	-7.21	117.12	126.50
69	A5	2734	A	N1-C6-N6	7.21	122.93	118.60
69	A5	3712	G	N7-C8-N9	-7.21	109.49	113.10
55	AZ	48	LEU	CA-CB-CG	7.21	131.88	115.30
69	A5	2623	C	N3-C2-O2	-7.20	116.86	121.90
69	A5	3281	G	N1-C6-O6	-7.20	115.58	119.90
69	A5	2651	G	O4'-C1'-N9	7.20	113.96	108.20
69	A5	1724	A	C8-N9-C4	-7.20	102.92	105.80
70	B2	313	C	C6-N1-C2	-7.20	117.42	120.30
69	A5	547	U	N3-C2-O2	-7.20	117.16	122.20
69	A5	1597	A	C5-N7-C8	-7.20	100.30	103.90
70	B2	1193	C	N1-C2-O2	7.20	123.22	118.90
70	B2	1596	C	N3-C2-O2	-7.20	116.86	121.90
69	A5	2757	U	C5-C6-N1	7.19	126.30	122.70
69	A5	3716	C	N1-C2-O2	7.19	123.21	118.90
69	A5	631	A	C8-N9-C4	-7.19	102.93	105.80
69	A5	3503	G	C5-C6-O6	7.18	132.91	128.60
69	A5	19	C	C5-C6-N1	7.18	124.59	121.00
69	A5	881	G	N9-C4-C5	7.18	108.27	105.40
40	A8	106	A	C2-N3-C4	7.18	114.19	110.60
69	A5	660	A	N7-C8-N9	7.17	117.39	113.80
69	A5	3516	C	N3-C4-C5	7.17	124.77	121.90
69	A5	3240	U	C5-C6-N1	7.17	126.29	122.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1149	C	C5-C6-N1	7.17	124.58	121.00
69	A5	31	C	N1-C2-O2	7.17	123.20	118.90
69	A5	476	U	N1-C2-O2	7.17	127.82	122.80
69	A5	545	U	N1-C2-O2	7.17	127.82	122.80
69	A5	1782	C	C6-N1-C2	-7.17	117.43	120.30
69	A5	863	U	N1-C2-O2	7.17	127.81	122.80
69	A5	1974	U	N1-C2-O2	7.17	127.81	122.80
69	A5	1017	A	O4'-C1'-N9	-7.16	102.47	108.20
69	A5	2151	A	C5-C6-N6	7.16	129.43	123.70
69	A5	1588	A	C8-N9-C4	-7.16	102.94	105.80
69	A5	1715	G	N9-C4-C5	7.16	108.26	105.40
69	A5	3918	A	C4-C5-N7	7.16	114.28	110.70
69	A5	439	U	N3-C4-C5	7.16	118.89	114.60
69	A5	874	G	C6-C5-N7	-7.16	126.11	130.40
69	A5	1384	C	N1-C2-O2	7.16	123.19	118.90
69	A5	1193	A	N3-C4-C5	7.15	131.81	126.80
69	A5	449	U	C5-C6-N1	7.15	126.28	122.70
69	A5	3258	C	N3-C4-N4	-7.15	113.00	118.00
69	A5	1599	C	N3-C2-O2	-7.15	116.90	121.90
69	A5	752	U	C6-N1-C2	-7.14	116.71	121.00
69	A5	1908	A	C2-N3-C4	7.14	114.17	110.60
39	A7	78	C	N1-C2-O2	7.14	123.18	118.90
40	A8	33	U	N3-C2-O2	-7.14	117.20	122.20
69	A5	354	A	N1-C2-N3	-7.14	125.73	129.30
69	A5	299	G	N9-C4-C5	7.14	108.25	105.40
70	B2	1582	C	C2-N1-C1'	7.13	126.64	118.80
69	A5	1026	G	N1-C2-N2	-7.13	109.79	116.20
69	A5	1055	U	O5'-P-OP1	-7.12	99.29	105.70
69	A5	3591	A	N3-C4-N9	-7.12	121.70	127.40
69	A5	477	C	C6-N1-C2	-7.12	117.45	120.30
69	A5	1384	C	O5'-P-OP2	-7.12	99.29	105.70
69	A5	93	G	N3-C2-N2	-7.12	114.92	119.90
69	A5	788	C	C4-C5-C6	-7.12	113.84	117.40
69	A5	1759	C	N3-C2-O2	-7.11	116.92	121.90
69	A5	3918	A	O4'-C1'-N9	7.11	113.89	108.20
69	A5	1090	U	N1-C2-N3	7.11	119.17	114.90
69	A5	1981	A	N1-C2-N3	-7.11	125.75	129.30
69	A5	3687	A	C2-N3-C4	7.10	114.15	110.60
69	A5	117	C	N3-C2-O2	-7.10	116.93	121.90
69	A5	3378	U	N1-C2-O2	7.10	127.77	122.80
69	A5	3877	G	O4'-C1'-N9	7.10	113.88	108.20
39	A7	95	U	N3-C4-O4	-7.10	114.43	119.40

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1346	C	N1-C2-O2	7.10	123.16	118.90
69	A5	1740	C	C6-N1-C2	-7.09	117.46	120.30
70	B2	1187	U	C5-C6-N1	7.09	126.25	122.70
70	B2	1191	C	C6-N1-C2	-7.09	117.46	120.30
69	A5	94	C	C6-N1-C2	-7.09	117.46	120.30
69	A5	1689	G	P-O3'-C3'	7.09	128.20	119.70
69	A5	360	A	N1-C6-N6	-7.08	114.35	118.60
69	A5	3400	U	OP1-P-O3'	7.08	120.78	105.20
69	A5	458	A	N3-C4-C5	-7.08	121.84	126.80
69	A5	2649	A	O4'-C1'-N9	7.08	113.86	108.20
69	A5	1892	C	N3-C2-O2	-7.08	116.95	121.90
69	A5	3364	C	C6-N1-C2	-7.07	117.47	120.30
69	A5	805	C	C5-C6-N1	7.07	124.54	121.00
69	A5	3520	U	N3-C2-O2	-7.07	117.25	122.20
69	A5	289	C	C6-N1-C2	-7.07	117.47	120.30
70	B2	25	U	P-O3'-C3'	7.07	128.18	119.70
69	A5	1000	G	C5-C6-O6	-7.07	124.36	128.60
70	B2	1991	C	N3-C2-O2	-7.07	116.95	121.90
69	A5	1258	C	N3-C2-O2	-7.06	116.96	121.90
70	B2	1924	C	N3-C2-O2	-7.06	116.96	121.90
69	A5	3755	A	C8-N9-C4	-7.06	102.98	105.80
69	A5	2054	U	N1-C2-O2	7.06	127.74	122.80
69	A5	3344	U	N3-C2-O2	-7.06	117.26	122.20
69	A5	3417	C	C5-C6-N1	7.06	124.53	121.00
69	A5	3275	G	C5-C6-O6	-7.06	124.37	128.60
36	CE	95	LEU	CA-CB-CG	7.05	131.51	115.30
69	A5	1687	U	N1-C2-N3	7.05	119.13	114.90
69	A5	1690	U	N3-C2-O2	-7.05	117.27	122.20
69	A5	3613	G	N7-C8-N9	7.04	116.62	113.10
69	A5	3918	A	C5-N7-C8	-7.04	100.38	103.90
70	B2	635	C	C2-N1-C1'	7.04	126.54	118.80
70	B2	1033	U	N3-C2-O2	-7.04	117.28	122.20
69	A5	1693	C	C5-C6-N1	7.03	124.52	121.00
69	A5	2763	U	N3-C2-O2	-7.03	117.28	122.20
26	Ci	11	LEU	CA-CB-CG	7.03	131.47	115.30
69	A5	997	U	N1-C2-O2	7.03	127.72	122.80
69	A5	1658	G	C5-C6-O6	7.03	132.82	128.60
69	A5	2013	C	N1-C2-O2	7.03	123.12	118.90
69	A5	3381	C	C5-C6-N1	7.03	124.51	121.00
70	B2	550	C	N3-C2-O2	-7.03	116.98	121.90
69	A5	101	C	N3-C2-O2	-7.03	116.98	121.90
69	A5	1196	A	C5-N7-C8	-7.03	100.39	103.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1359	G	C5-C6-O6	-7.03	124.38	128.60
69	A5	3643	C	N3-C2-O2	-7.02	116.98	121.90
69	A5	1108	G	N9-C4-C5	7.02	108.21	105.40
69	A5	2700	C	C6-N1-C2	-7.01	117.49	120.30
1	CO	202	GLY	N-CA-C	7.01	130.63	113.10
69	A5	246	C	C6-N1-C2	-7.01	117.50	120.30
69	A5	3149	U	C5-C4-O4	7.01	130.10	125.90
69	A5	625	C	C6-N1-C2	-7.01	117.50	120.30
69	A5	1145	C	C5-C6-N1	7.01	124.50	121.00
69	A5	1146	U	C5-C6-N1	7.01	126.20	122.70
69	A5	3292	C	C6-N1-C2	-7.00	117.50	120.30
70	B2	550	C	C6-N1-C2	-7.00	117.50	120.30
69	A5	567	A	C8-N9-C4	-7.00	103.00	105.80
69	A5	1545	A	C5-N7-C8	-7.00	100.40	103.90
69	A5	631	A	N7-C8-N9	7.00	117.30	113.80
69	A5	1527	C	N1-C2-O2	7.00	123.10	118.90
40	A8	32	G	N1-C6-O6	-6.99	115.70	119.90
69	A5	866	C	C2-N1-C1'	6.99	126.49	118.80
69	A5	92	A	C4-C5-N7	6.99	114.19	110.70
69	A5	1151	A	N1-C6-N6	-6.99	114.41	118.60
69	A5	2530	C	C5-C6-N1	6.99	124.49	121.00
6	CN	184	ILE	CG1-CB-CG2	-6.99	96.03	111.40
69	A5	540	G	C4-N9-C1'	6.99	135.58	126.50
69	A5	2715	C	N1-C2-O2	6.98	123.09	118.90
69	A5	2764	A	N9-C4-C5	-6.98	103.01	105.80
70	B2	1861	U	C5-C6-N1	6.98	126.19	122.70
69	A5	1264	U	C5-C6-N1	6.98	126.19	122.70
69	A5	1724	A	C4-N9-C1'	6.97	138.85	126.30
69	A5	1326	A	N9-C4-C5	-6.97	103.01	105.80
40	A8	112	C	C5-C6-N1	6.97	124.48	121.00
69	A5	1167	A	O5'-P-OP2	-6.96	99.43	105.70
69	A5	1796	A	C5-N7-C8	-6.96	100.42	103.90
69	A5	2696	U	N3-C2-O2	-6.95	117.33	122.20
69	A5	3774	U	C2-N1-C1'	6.95	126.04	117.70
69	A5	3757	U	O4'-C1'-N1	6.95	113.76	108.20
69	A5	1316	U	C5-C4-O4	6.95	130.07	125.90
69	A5	1317	A	C8-N9-C4	-6.95	103.02	105.80
69	A5	3397	U	N3-C2-O2	-6.94	117.34	122.20
69	A5	1156	U	O5'-P-OP2	-6.94	99.45	105.70
69	A5	749	U	C6-N1-C2	-6.94	116.84	121.00
69	A5	1080	G	N3-C2-N2	6.94	124.76	119.90
69	A5	566	A	C8-N9-C4	-6.94	103.03	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1135	U	C5-C4-O4	-6.94	121.74	125.90
69	A5	136	C	N1-C2-O2	6.93	123.06	118.90
40	A8	53	C	C6-N1-C2	-6.93	117.53	120.30
69	A5	439	U	N1-C2-O2	6.92	127.65	122.80
69	A5	3463	U	C5-C6-N1	6.92	126.16	122.70
69	A5	3193	C	C2-N1-C1'	6.92	126.41	118.80
36	CE	226	LEU	CA-CB-CG	6.91	131.20	115.30
69	A5	675	C	N3-C2-O2	-6.91	117.06	121.90
69	A5	1004	C	N3-C2-O2	-6.91	117.06	121.90
69	A5	1339	U	C5-C6-N1	6.91	126.16	122.70
8	CD	150	LEU	CA-CB-CG	6.91	131.20	115.30
69	A5	2584	G	C8-N9-C1'	-6.91	118.02	127.00
69	A5	3350	U	C5-C6-N1	6.91	126.16	122.70
69	A5	1303	C	N3-C2-O2	-6.91	117.06	121.90
69	A5	3839	A	P-O3'-C3'	6.91	127.99	119.70
69	A5	2087	C	C2-N1-C1'	6.90	126.39	118.80
69	A5	1618	A	C2-N3-C4	6.90	114.05	110.60
69	A5	2054	U	N3-C2-O2	-6.90	117.37	122.20
69	A5	3387	C	C6-N1-C2	-6.90	117.54	120.30
69	A5	3522	A	O5'-P-OP1	-6.90	99.49	105.70
69	A5	2733	G	C6-N1-C2	-6.90	120.96	125.10
69	A5	3141	A	N7-C8-N9	6.89	117.25	113.80
69	A5	1726	G	O4'-C1'-N9	6.89	113.72	108.20
69	A5	2212	A	N9-C4-C5	-6.89	103.04	105.80
69	A5	2233	C	N3-C2-O2	-6.89	117.08	121.90
69	A5	1099	U	N3-C2-O2	-6.89	117.38	122.20
69	A5	72	C	C6-N1-C2	-6.89	117.55	120.30
69	A5	1025	U	N3-C2-O2	-6.89	117.38	122.20
69	A5	3259	A	N1-C6-N6	-6.88	114.47	118.60
69	A5	2181	A	N1-C6-N6	-6.88	114.47	118.60
69	A5	1366	G	C5-C6-N1	-6.88	108.06	111.50
69	A5	2763	U	C6-N1-C1'	-6.88	111.57	121.20
69	A5	3000	G	N7-C8-N9	6.88	116.54	113.10
69	A5	1734	G	C5-C6-O6	-6.87	124.48	128.60
69	A5	439	U	C5-C6-N1	-6.87	119.27	122.70
69	A5	454	C	N3-C2-O2	-6.87	117.09	121.90
69	A5	1569	U	N1-C2-O2	6.87	127.61	122.80
69	A5	816	A	N1-C6-N6	-6.86	114.48	118.60
69	A5	3398	C	N1-C2-O2	6.86	123.02	118.90
40	A8	37	U	N1-C2-O2	6.86	127.60	122.80
69	A5	543	A	C4-C5-N7	6.86	114.13	110.70
69	A5	1713	U	C6-N1-C2	-6.86	116.88	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1093	C	C6-N1-C2	-6.86	117.56	120.30
69	A5	2243	G	C5-C6-N1	6.85	114.93	111.50
69	A5	3887	U	N3-C2-O2	-6.85	117.41	122.20
69	A5	1545	A	N7-C8-N9	6.85	117.22	113.80
69	A5	984	U	C2-N1-C1'	6.84	125.91	117.70
69	A5	3381	C	C2-N1-C1'	6.84	126.33	118.80
69	A5	3751	C	N1-C2-O2	6.84	123.01	118.90
69	A5	3269	G	C4-C5-N7	6.84	113.54	110.80
69	A5	1316	U	C2-N1-C1'	6.84	125.90	117.70
69	A5	1776	U	N1-C2-O2	6.83	127.58	122.80
69	A5	777	C	C6-N1-C2	-6.83	117.57	120.30
69	A5	3492	G	C8-N9-C4	-6.83	103.67	106.40
69	A5	883	U	N3-C2-O2	-6.83	117.42	122.20
69	A5	1366	G	C5-C6-O6	6.83	132.70	128.60
69	A5	1797	A	C8-N9-C4	-6.83	103.07	105.80
70	B2	1003	C	C6-N1-C2	-6.82	117.57	120.30
69	A5	1142	U	OP1-P-O3'	6.81	120.19	105.20
69	A5	1198	U	N1-C2-O2	6.81	127.57	122.80
69	A5	2725	U	N1-C2-O2	6.81	127.57	122.80
69	A5	3149	U	C6-N1-C2	-6.81	116.91	121.00
69	A5	3305	U	C5-C6-N1	6.81	126.11	122.70
69	A5	1540	U	C6-N1-C2	-6.80	116.92	121.00
69	A5	3665	U	N3-C2-O2	-6.80	117.44	122.20
69	A5	1026	G	N9-C4-C5	-6.80	102.68	105.40
69	A5	1325	C	C6-N1-C2	-6.80	117.58	120.30
69	A5	3540	G	N1-C2-N2	-6.80	110.08	116.20
69	A5	999	U	N1-C2-O2	6.80	127.56	122.80
69	A5	1761	C	N1-C2-O2	6.80	122.98	118.90
69	A5	755	A	C5-N7-C8	-6.79	100.50	103.90
69	A5	2800	C	N3-C2-O2	-6.79	117.14	121.90
69	A5	2696	U	N1-C2-O2	6.79	127.55	122.80
70	B2	1648	C	N1-C2-O2	6.79	122.97	118.90
69	A5	1366	G	N7-C8-N9	6.79	116.49	113.10
69	A5	1079	U	C2-N1-C1'	6.78	125.84	117.70
69	A5	128	C	C5-C6-N1	6.78	124.39	121.00
65	AH	26	LEU	CA-CB-CG	6.78	130.89	115.30
69	A5	1699	A	N3-C4-C5	-6.78	122.06	126.80
69	A5	1315	A	N7-C8-N9	6.78	117.19	113.80
69	A5	429	U	C5-C6-N1	6.77	126.09	122.70
69	A5	1611	G	N1-C6-O6	-6.77	115.84	119.90
69	A5	2789	U	N3-C2-O2	-6.77	117.46	122.20
69	A5	296	C	P-O3'-C3'	6.77	127.83	119.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	679	G	N3-C4-N9	6.77	130.06	126.00
69	A5	1050	C	N1-C2-O2	6.77	122.96	118.90
69	A5	3593	A	OP1-P-O3'	6.77	120.08	105.20
69	A5	1570	U	C5-C6-N1	6.76	126.08	122.70
69	A5	540	G	C8-N9-C4	-6.76	103.69	106.40
69	A5	352	U	N1-C2-O2	6.76	127.53	122.80
69	A5	2243	G	N3-C4-N9	6.76	130.06	126.00
69	A5	3822	C	C6-N1-C2	-6.76	117.60	120.30
40	A8	18	C	C6-N1-C2	-6.76	117.60	120.30
69	A5	3431	C	N3-C2-O2	-6.76	117.17	121.90
69	A5	831	A	N1-C6-N6	-6.76	114.55	118.60
69	A5	1715	G	C8-N9-C1'	6.75	135.78	127.00
69	A5	2147	C	C6-N1-C2	-6.75	117.60	120.30
69	A5	1145	C	N3-C2-O2	-6.75	117.17	121.90
69	A5	1172	G	O5'-P-OP2	6.75	118.80	110.70
69	A5	1383	A	C6-C5-N7	-6.75	127.57	132.30
69	A5	3671	C	C5-C6-N1	6.75	124.38	121.00
69	A5	3880	A	N7-C8-N9	6.75	117.18	113.80
69	A5	2511	C	N3-C2-O2	-6.75	117.17	121.90
69	A5	3316	U	N3-C2-O2	-6.75	117.47	122.20
69	A5	1360	U	N1-C2-O2	6.75	127.52	122.80
69	A5	3472	A	C4-N9-C1'	6.75	138.45	126.30
69	A5	304	U	C6-N1-C2	-6.75	116.95	121.00
69	A5	110	A	N1-C6-N6	-6.75	114.55	118.60
69	A5	2224	A	C8-N9-C4	-6.75	103.10	105.80
69	A5	179	C	N1-C2-O2	6.74	122.95	118.90
69	A5	454	C	N1-C2-O2	6.74	122.94	118.90
69	A5	1498	C	N3-C2-O2	-6.74	117.18	121.90
69	A5	1866	G	N9-C4-C5	-6.74	102.70	105.40
69	A5	3969	G	N7-C8-N9	6.74	116.47	113.10
40	A8	99	U	C2-N1-C1'	6.74	125.79	117.70
69	A5	1658	G	N1-C6-O6	-6.74	115.86	119.90
69	A5	3269	G	N9-C4-C5	-6.74	102.70	105.40
69	A5	3550	C	C6-N1-C2	-6.74	117.60	120.30
70	B2	1582	C	N1-C2-O2	6.74	122.94	118.90
69	A5	3283	U	C6-N1-C1'	-6.74	111.77	121.20
70	B2	315	C	N1-C2-O2	6.74	122.94	118.90
69	A5	3473	C	OP2-P-O3'	6.74	120.02	105.20
69	A5	3713	C	N3-C4-N4	6.74	122.71	118.00
69	A5	1316	U	O4'-C1'-N1	6.73	113.59	108.20
69	A5	2035	C	N3-C2-O2	-6.73	117.19	121.90
69	A5	546	G	N3-C2-N2	6.73	124.61	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1383	A	C4'-C3'-O3'	6.73	126.46	113.00
70	B2	1120	C	C6-N1-C2	-6.73	117.61	120.30
69	A5	679	G	C2-N3-C4	6.73	115.27	111.90
69	A5	2207	A	C5-C6-N6	-6.73	118.32	123.70
69	A5	1297	G	C4-N9-C1'	6.73	135.25	126.50
69	A5	2516	U	N1-C2-N3	6.73	118.94	114.90
40	A8	94	C	N3-C2-O2	-6.72	117.19	121.90
69	A5	117	C	C2-N1-C1'	6.72	126.20	118.80
69	A5	1353	G	N7-C8-N9	6.72	116.46	113.10
69	A5	2725	U	N3-C2-O2	-6.72	117.49	122.20
69	A5	791	C	N1-C2-N3	6.72	123.90	119.20
69	A5	1752	G	N1-C6-O6	-6.72	115.87	119.90
69	A5	1529	C	N3-C2-O2	-6.72	117.20	121.90
69	A5	1799	U	O5'-P-OP1	6.72	118.76	110.70
69	A5	2779	A	O4'-C1'-N9	6.72	113.58	108.20
69	A5	813	C	C5-C4-N4	-6.72	115.50	120.20
69	A5	1156	U	N3-C2-O2	-6.72	117.50	122.20
69	A5	1595	G	C8-N9-C4	-6.72	103.71	106.40
69	A5	2796	G	C8-N9-C1'	-6.72	118.27	127.00
69	A5	3448	U	N3-C2-O2	-6.72	117.50	122.20
69	A5	3880	A	O4'-C1'-N9	6.72	113.57	108.20
69	A5	1715	G	C5-N7-C8	-6.71	100.94	104.30
69	A5	2218	G	C4-C5-N7	6.71	113.48	110.80
69	A5	663	U	N3-C4-O4	-6.71	114.70	119.40
69	A5	1013	G	C8-N9-C1'	-6.71	118.28	127.00
69	A5	1797	A	N1-C2-N3	-6.71	125.95	129.30
70	B2	1765	U	P-O3'-C3'	6.71	127.75	119.70
69	A5	1105	U	N3-C2-O2	-6.71	117.51	122.20
69	A5	1739	U	N1-C2-O2	6.71	127.49	122.80
38	A9	26	U	C5-C6-N1	6.70	126.05	122.70
69	A5	822	G	N1-C6-O6	-6.70	115.88	119.90
69	A5	2728	C	N3-C2-O2	-6.70	117.21	121.90
69	A5	851	G	C5-C6-O6	-6.70	124.58	128.60
69	A5	1555	G	O5'-P-OP2	-6.70	99.67	105.70
69	A5	2554	U	C6-N1-C2	-6.70	116.98	121.00
69	A5	394	G	C4-C5-N7	6.70	113.48	110.80
69	A5	1421	G	C4-N9-C1'	6.70	135.20	126.50
69	A5	1803	C	C2-N3-C4	6.70	123.25	119.90
69	A5	3654	C	N1-C2-O2	6.70	122.92	118.90
69	A5	40	U	N3-C2-O2	-6.69	117.52	122.20
69	A5	1872	A	N7-C8-N9	6.69	117.15	113.80
69	A5	3477	A	O5'-P-OP2	-6.69	99.68	105.70

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	213	A	N9-C4-C5	-6.69	103.12	105.80
40	A8	108	A	N7-C8-N9	6.69	117.14	113.80
69	A5	3553	C	N1-C2-O2	6.69	122.91	118.90
70	B2	1788	C	N1-C2-O2	6.68	122.91	118.90
70	B2	877	U	N1-C2-O2	6.68	127.47	122.80
69	A5	3162	C	N1-C2-O2	6.68	122.91	118.90
69	A5	117	C	C6-N1-C2	-6.67	117.63	120.30
69	A5	1000	G	N3-C4-C5	-6.67	125.26	128.60
40	A8	49	C	N1-C2-O2	6.67	122.90	118.90
69	A5	318	G	C8-N9-C4	-6.67	103.73	106.40
69	A5	797	A	C8-N9-C4	-6.67	103.13	105.80
69	A5	368	C	O4'-C1'-N1	-6.67	102.87	108.20
69	A5	752	U	N3-C4-O4	-6.67	114.73	119.40
69	A5	1654	C	C6-N1-C2	-6.66	117.64	120.30
73	AK	55	LEU	CA-CB-CG	6.66	130.62	115.30
69	A5	1060	G	N9-C4-C5	-6.66	102.74	105.40
69	A5	1197	A	N1-C6-N6	-6.66	114.61	118.60
69	A5	1020	A	N1-C6-N6	-6.66	114.61	118.60
69	A5	1000	G	O5'-P-OP2	-6.66	99.71	105.70
69	A5	3161	U	N3-C2-O2	-6.65	117.54	122.20
69	A5	3235	A	N1-C2-N3	-6.65	125.97	129.30
69	A5	2573	C	C5-C6-N1	6.65	124.33	121.00
39	A7	102	C	N3-C2-O2	-6.65	117.25	121.90
69	A5	1588	A	N1-C6-N6	-6.65	114.61	118.60
69	A5	1614	A	C5-N7-C8	-6.65	100.58	103.90
69	A5	527	U	N1-C2-O2	6.64	127.45	122.80
69	A5	364	U	C5-C6-N1	-6.64	119.38	122.70
69	A5	2185	U	N1-C2-O2	6.64	127.45	122.80
38	A9	26	U	C2-N1-C1'	6.64	125.66	117.70
69	A5	1726	G	N7-C8-N9	6.63	116.42	113.10
69	A5	664	U	C5-C4-O4	-6.63	121.92	125.90
69	A5	66	A	C5-N7-C8	-6.63	100.59	103.90
69	A5	301	U	C6-N1-C1'	-6.63	111.92	121.20
69	A5	427	A	N1-C6-N6	-6.63	114.62	118.60
69	A5	1313	A	N3-C4-N9	-6.63	122.10	127.40
69	A5	1563	A	C2-N3-C4	6.63	113.91	110.60
69	A5	807	A	N1-C6-N6	-6.62	114.63	118.60
69	A5	2492	A	C5-C6-N6	-6.62	118.40	123.70
69	A5	287	G	C5-C6-O6	-6.62	124.63	128.60
69	A5	1353	G	C8-N9-C4	-6.62	103.75	106.40
69	A5	3258	C	N1-C2-O2	6.62	122.87	118.90
69	A5	2225	A	C4-C5-C6	-6.62	113.69	117.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2150	U	O5'-P-OP2	-6.61	99.75	105.70
69	A5	2492	A	C6-C5-N7	-6.61	127.67	132.30
69	A5	3399	C	C5-C6-N1	6.61	124.31	121.00
69	A5	3309	A	N7-C8-N9	6.61	117.10	113.80
69	A5	1294	U	O5'-P-OP2	-6.61	99.75	105.70
69	A5	3911	G	N3-C4-N9	6.61	129.97	126.00
69	A5	1136	A	N9-C4-C5	-6.61	103.16	105.80
69	A5	553	A	C6-C5-N7	-6.60	127.68	132.30
69	A5	1028	U	N3-C2-O2	-6.60	117.58	122.20
69	A5	1731	G	C2-N3-C4	6.60	115.20	111.90
69	A5	1798	A	N7-C8-N9	6.60	117.10	113.80
69	A5	2067	C	N3-C2-O2	-6.60	117.28	121.90
69	A5	3152	G	O5'-P-OP1	-6.60	99.76	105.70
69	A5	3368	C	N3-C2-O2	-6.60	117.28	121.90
69	A5	3235	A	C2-N3-C4	6.60	113.90	110.60
69	A5	3298	U	N3-C2-O2	-6.60	117.58	122.20
69	A5	1068	C	N3-C2-O2	-6.59	117.28	121.90
70	B2	1978	C	C5-C6-N1	6.59	124.30	121.00
69	A5	2583	U	N1-C2-O2	6.59	127.42	122.80
69	A5	3481	G	O4'-C1'-N9	6.59	113.47	108.20
69	A5	1199	C	C6-N1-C2	-6.59	117.66	120.30
69	A5	3729	A	P-O3'-C3'	6.59	127.61	119.70
69	A5	322	G	C8-N9-C4	6.58	109.03	106.40
69	A5	2224	A	C4-C5-N7	6.58	113.99	110.70
69	A5	840	U	O4'-C1'-N1	6.58	113.47	108.20
69	A5	1548	C	O5'-P-OP1	-6.58	99.78	105.70
69	A5	839	A	C8-N9-C1'	6.58	139.55	127.70
69	A5	1127	C	C5-C6-N1	6.58	124.29	121.00
69	A5	21	U	N3-C2-O2	-6.58	117.59	122.20
69	A5	1333	C	N1-C2-O2	6.58	122.85	118.90
69	A5	3397	U	N1-C2-O2	6.58	127.41	122.80
69	A5	3243	C	C6-N1-C2	-6.58	117.67	120.30
69	A5	1768	G	C8-N9-C1'	-6.57	118.45	127.00
79	Cg	58	ARG	NE-CZ-NH1	6.57	123.59	120.30
69	A5	2763	U	N1-C2-O2	6.57	127.40	122.80
69	A5	1596	A	C5-C6-N1	6.57	120.98	117.70
69	A5	451	A	N1-C2-N3	-6.57	126.02	129.30
69	A5	3710	U	C5-C6-N1	6.57	125.98	122.70
69	A5	3400	U	N1-C2-O2	6.56	127.39	122.80
70	B2	1960	A	N7-C8-N9	6.56	117.08	113.80
69	A5	3473	C	N3-C4-C5	6.56	124.52	121.90
69	A5	1035	G	O4'-C1'-N9	6.56	113.45	108.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1725	A	N1-C6-N6	6.56	122.54	118.60
69	A5	660	A	C8-N9-C4	-6.56	103.18	105.80
69	A5	1010	A	N1-C2-N3	-6.56	126.02	129.30
69	A5	1689	G	C4-C5-C6	6.56	122.73	118.80
69	A5	652	G	C5-N7-C8	6.55	107.58	104.30
69	A5	2727	U	OP1-P-OP2	-6.55	109.77	119.60
70	B2	618	G	C4-N9-C1'	6.55	135.02	126.50
39	A7	65	C	N3-C2-O2	-6.55	117.31	121.90
69	A5	311	C	C5-C6-N1	6.55	124.28	121.00
69	A5	1752	G	C6-C5-N7	6.55	134.33	130.40
69	A5	3845	A	N7-C8-N9	6.55	117.08	113.80
69	A5	1102	G	C8-N9-C4	-6.55	103.78	106.40
69	A5	2712	U	C6-N1-C2	-6.55	117.07	121.00
69	A5	2714	U	C5-C6-N1	6.54	125.97	122.70
65	AH	156	LEU	CA-CB-CG	6.54	130.35	115.30
69	A5	1798	A	C8-N9-C4	-6.54	103.18	105.80
69	A5	1009	G	N1-C6-O6	-6.54	115.97	119.90
69	A5	3617	U	C5-C6-N1	6.54	125.97	122.70
69	A5	553	A	C4-C5-N7	6.54	113.97	110.70
69	A5	2760	G	O4'-C1'-N9	6.54	113.43	108.20
69	A5	1157	C	C5-C6-N1	6.54	124.27	121.00
69	A5	2849	U	C5-C6-N1	6.54	125.97	122.70
70	B2	1650	G	N3-C4-C5	-6.54	125.33	128.60
69	A5	1592	U	N3-C4-O4	6.54	123.98	119.40
69	A5	3553	C	C6-N1-C2	-6.54	117.69	120.30
69	A5	2492	A	C5-N7-C8	-6.54	100.63	103.90
69	A5	3378	U	C2-N1-C1'	6.54	125.54	117.70
69	A5	3550	C	C5-C6-N1	6.54	124.27	121.00
69	A5	2767	U	N3-C2-O2	-6.53	117.63	122.20
69	A5	1141	G	C8-N9-C4	-6.53	103.79	106.40
69	A5	1631	U	N3-C2-O2	-6.53	117.63	122.20
69	A5	1065	A	C2-N3-C4	6.53	113.86	110.60
69	A5	2773	G	C2-N3-C4	6.53	115.16	111.90
69	A5	3342	C	C5-C6-N1	6.53	124.26	121.00
69	A5	2163	A	N9-C4-C5	-6.52	103.19	105.80
69	A5	1288	U	C6-N1-C1'	-6.52	112.07	121.20
69	A5	1718	G	C8-N9-C1'	-6.52	118.53	127.00
69	A5	3461	C	N3-C2-O2	-6.51	117.34	121.90
70	B2	1111	U	N1-C2-O2	6.51	127.36	122.80
69	A5	1671	U	N3-C2-O2	-6.51	117.64	122.20
9	CQ	31	LEU	CA-CB-CG	6.50	130.26	115.30
69	A5	207	C	N3-C2-O2	-6.50	117.35	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3374	U	N3-C2-O2	-6.50	117.65	122.20
69	A5	3431	C	C2-N1-C1'	6.50	125.95	118.80
69	A5	872	A	P-O3'-C3'	6.50	127.50	119.70
69	A5	3258	C	N1-C2-N3	6.50	123.75	119.20
69	A5	1369	C	C2-N1-C1'	6.50	125.94	118.80
69	A5	2511	C	C5-C6-N1	6.50	124.25	121.00
70	B2	1087	C	N1-C2-O2	6.49	122.79	118.90
69	A5	1165	A	C4-C5-N7	-6.49	107.46	110.70
69	A5	3347	G	N1-C6-O6	-6.49	116.01	119.90
39	A7	78	C	N3-C2-O2	-6.49	117.36	121.90
69	A5	2067	C	C5-C6-N1	6.49	124.24	121.00
69	A5	1752	G	N3-C2-N2	-6.48	115.36	119.90
69	A5	224	U	P-O3'-C3'	6.48	127.48	119.70
69	A5	3000	G	C5-N7-C8	-6.48	101.06	104.30
69	A5	318	G	N9-C4-C5	6.48	107.99	105.40
69	A5	1960	C	C5-C6-N1	6.47	124.24	121.00
69	A5	866	C	C4-C5-C6	-6.47	114.17	117.40
69	A5	2803	A	N7-C8-N9	6.47	117.03	113.80
69	A5	2268	G	N3-C4-N9	6.47	129.88	126.00
69	A5	356	A	O5'-P-OP1	-6.47	99.88	105.70
70	B2	1817	C	N1-C2-O2	6.46	122.78	118.90
69	A5	2796	G	P-O3'-C3'	6.46	127.45	119.70
69	A5	3365	G	C8-N9-C4	-6.46	103.82	106.40
69	A5	1801	U	C2'-C3'-O3'	6.46	124.03	113.70
69	A5	3596	A	C5-N7-C8	-6.46	100.67	103.90
69	A5	3969	G	C5-N7-C8	-6.46	101.07	104.30
69	A5	49	A	N1-C2-N3	-6.46	126.07	129.30
69	A5	925	C	C2-N1-C1'	6.46	125.90	118.80
70	B2	1991	C	C2-N1-C1'	6.46	125.90	118.80
69	A5	122	C	N3-C2-O2	-6.45	117.38	121.90
39	A7	67	G	N3-C4-N9	-6.45	122.13	126.00
70	B2	1333	C	C2-N1-C1'	6.45	125.90	118.80
69	A5	1594	U	P-O3'-C3'	6.45	127.44	119.70
69	A5	540	G	N7-C8-N9	6.45	116.33	113.10
69	A5	445	C	C5-C6-N1	6.45	124.22	121.00
69	A5	2038	A	C8-N9-C4	-6.44	103.22	105.80
69	A5	2521	A	N7-C8-N9	-6.44	110.58	113.80
69	A5	3320	C	C6-N1-C2	-6.44	117.72	120.30
69	A5	350	C	C5-C6-N1	6.44	124.22	121.00
69	A5	1565	A	C2-N3-C4	6.44	113.82	110.60
69	A5	12	C	C6-N1-C2	-6.43	117.73	120.30
69	A5	1631	U	N1-C2-O2	6.43	127.30	122.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2170	C	C6-N1-C2	-6.43	117.73	120.30
69	A5	1117	A	OP1-P-OP2	-6.43	109.95	119.60
70	B2	1681	U	C2-N1-C1'	6.43	125.42	117.70
69	A5	3405	U	C5-C4-O4	6.43	129.76	125.90
69	A5	1069	A	C2-N3-C4	6.43	113.81	110.60
69	A5	1518	A	C8-N9-C4	6.43	108.37	105.80
13	CT	144	LEU	CA-CB-CG	6.42	130.07	115.30
69	A5	790	U	C5-C4-O4	-6.42	122.05	125.90
69	A5	692	G	C8-N9-C1'	-6.42	118.65	127.00
40	A8	25	C	C6-N1-C2	-6.42	117.73	120.30
69	A5	2257	C	C6-N1-C2	-6.42	117.73	120.30
69	A5	3721	C	N3-C2-O2	-6.42	117.41	121.90
69	A5	1089	U	C6-N1-C2	-6.42	117.15	121.00
69	A5	1686	A	C4-C5-N7	6.42	113.91	110.70
69	A5	2068	A	C5-N7-C8	-6.42	100.69	103.90
69	A5	92	A	N9-C4-C5	-6.42	103.23	105.80
69	A5	2699	A	C4-C5-C6	-6.41	113.79	117.00
69	A5	1771	G	O5'-P-OP1	-6.41	99.93	105.70
69	A5	2063	A	O4'-C1'-N9	6.41	113.33	108.20
69	A5	2772	G	N3-C4-C5	-6.41	125.40	128.60
69	A5	2798	C	C5-C6-N1	6.41	124.20	121.00
69	A5	2210	U	N3-C4-C5	6.41	118.44	114.60
69	A5	477	C	C5-C6-N1	6.40	124.20	121.00
69	A5	1739	U	C2-N1-C1'	6.40	125.38	117.70
69	A5	3441	C	N3-C2-O2	-6.40	117.42	121.90
69	A5	754	A	C5-C6-N1	-6.40	114.50	117.70
69	A5	1140	G	N1-C6-O6	-6.40	116.06	119.90
69	A5	1274	A	C5-C6-N1	6.40	120.90	117.70
69	A5	2683	G	O4'-C1'-N9	6.40	113.32	108.20
69	A5	3627	C	P-O3'-C3'	6.40	127.38	119.70
69	A5	759	U	C2-N3-C4	-6.39	123.16	127.00
69	A5	1313	A	C4-C5-N7	6.39	113.90	110.70
69	A5	1262	C	N3-C2-O2	-6.39	117.43	121.90
69	A5	3405	U	N3-C4-O4	-6.39	114.93	119.40
69	A5	1724	A	N7-C8-N9	6.39	116.99	113.80
69	A5	2676	U	C6-N1-C1'	-6.39	112.26	121.20
69	A5	2171	U	C2-N1-C1'	6.38	125.36	117.70
69	A5	3186	C	C6-N1-C2	-6.38	117.75	120.30
69	A5	3655	U	P-O3'-C3'	6.38	127.36	119.70
69	A5	541	A	C6-C5-N7	6.38	136.77	132.30
69	A5	3402	C	C2-N1-C1'	-6.38	111.78	118.80
69	A5	1318	A	C8-N9-C4	-6.38	103.25	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3402	C	N1-C2-N3	6.38	123.66	119.20
69	A5	3644	C	N1-C2-O2	6.38	122.73	118.90
69	A5	3185	C	N1-C2-O2	6.37	122.72	118.90
69	A5	2516	U	C4-C5-C6	6.37	123.52	119.70
69	A5	3949	U	N1-C2-O2	6.37	127.26	122.80
69	A5	753	U	N1-C2-O2	6.37	127.26	122.80
69	A5	1357	C	OP2-P-O3'	6.37	119.21	105.20
69	A5	3553	C	C5-C6-N1	6.37	124.18	121.00
70	B2	932	U	C5-C6-N1	6.37	125.88	122.70
69	A5	39	A	C8-N9-C4	-6.37	103.25	105.80
69	A5	881	G	N1-C2-N2	6.37	121.93	116.20
69	A5	1209	A	C2-N3-C4	6.37	113.78	110.60
69	A5	40	U	N1-C2-O2	6.36	127.25	122.80
69	A5	3161	U	N1-C2-O2	6.36	127.25	122.80
69	A5	432	U	N3-C2-O2	-6.36	117.75	122.20
69	A5	811	G	C5-N7-C8	-6.36	101.12	104.30
69	A5	2691	A	N1-C6-N6	-6.36	114.78	118.60
50	AP	83	LEU	CA-CB-CG	6.36	129.93	115.30
69	A5	3226	A	C5-C6-N1	6.36	120.88	117.70
40	A8	64	C	C2-N1-C1'	6.36	125.80	118.80
69	A5	2188	C	N1-C2-O2	6.36	122.72	118.90
69	A5	678	U	N3-C2-O2	-6.36	117.75	122.20
69	A5	1318	A	C6-C5-N7	-6.36	127.85	132.30
69	A5	1689	G	O5'-P-OP1	-6.36	99.98	105.70
69	A5	3844	U	C2-N3-C4	-6.36	123.19	127.00
69	A5	1784	A	C4-C5-C6	-6.36	113.82	117.00
39	A7	82	G	N1-C6-O6	-6.35	116.09	119.90
69	A5	349	C	O5'-P-OP1	-6.35	99.98	105.70
69	A5	911	A	C8-N9-C4	6.35	108.34	105.80
69	A5	2583	U	N3-C2-O2	-6.35	117.75	122.20
69	A5	660	A	C5-N7-C8	-6.35	100.72	103.90
7	CI	132	GLY	C-N-CA	6.34	137.56	121.70
69	A5	1683	U	N1-C2-O2	6.34	127.24	122.80
69	A5	1873	A	C8-N9-C4	6.34	108.34	105.80
69	A5	1407	C	N3-C2-O2	-6.34	117.46	121.90
69	A5	3316	U	C5-C6-N1	6.34	125.87	122.70
69	A5	1627	U	C6-N1-C1'	-6.34	112.32	121.20
69	A5	2492	A	C4-C5-N7	6.34	113.87	110.70
69	A5	3875	U	C5-C6-N1	6.34	125.87	122.70
70	B2	1596	C	C6-N1-C2	-6.34	117.76	120.30
69	A5	2185	U	N3-C2-O2	-6.34	117.76	122.20
69	A5	2780	A	N1-C2-N3	-6.34	126.13	129.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	201	U	C5-C6-N1	6.34	125.87	122.70
69	A5	752	U	C5-C4-O4	6.34	129.70	125.90
69	A5	2656	C	C6-N1-C2	-6.34	117.77	120.30
69	A5	716	C	C5-C6-N1	6.33	124.17	121.00
69	A5	839	A	N1-C2-N3	-6.33	126.13	129.30
69	A5	429	U	C6-N1-C2	-6.33	117.20	121.00
69	A5	2995	U	C2-N1-C1'	6.33	125.29	117.70
69	A5	1413	C	N3-C4-C5	6.32	124.43	121.90
69	A5	3234	A	C8-N9-C4	6.32	108.33	105.80
69	A5	3404	A	C4-C5-N7	6.32	113.86	110.70
69	A5	3619	U	C6-N1-C2	-6.32	117.21	121.00
70	B2	626	U	C2-N1-C1'	6.32	125.29	117.70
69	A5	3198	C	N3-C2-O2	-6.32	117.47	121.90
69	A5	1389	C	C5-C6-N1	6.32	124.16	121.00
69	A5	1553	C	N3-C2-O2	-6.32	117.47	121.90
69	A5	2219	U	C5-C6-N1	6.32	125.86	122.70
69	A5	2787	U	O4'-C1'-N1	6.32	113.25	108.20
69	A5	995	G	C8-N9-C4	6.31	108.93	106.40
69	A5	522	G	N3-C4-N9	6.31	129.79	126.00
69	A5	1060	G	C8-N9-C1'	-6.31	118.80	127.00
69	A5	3506	U	N3-C2-O2	-6.31	117.78	122.20
69	A5	1325	C	N1-C2-N3	6.31	123.62	119.20
69	A5	3342	C	C4-C5-C6	-6.31	114.25	117.40
69	A5	3374	U	N1-C2-O2	6.31	127.22	122.80
69	A5	3846	U	C4-C5-C6	-6.31	115.91	119.70
69	A5	3389	C	C6-N1-C2	-6.31	117.78	120.30
70	B2	1087	C	N3-C2-O2	-6.31	117.48	121.90
69	A5	33	C	O5'-P-OP1	-6.30	100.03	105.70
69	A5	791	C	C2-N3-C4	-6.30	116.75	119.90
69	A5	1749	A	N1-C6-N6	-6.30	114.82	118.60
69	A5	615	C	C5-C6-N1	6.30	124.15	121.00
69	A5	1543	C	N3-C2-O2	-6.30	117.49	121.90
69	A5	3258	C	O4'-C1'-N1	6.30	113.24	108.20
69	A5	775	U	N1-C2-N3	6.30	118.68	114.90
69	A5	1971	C	O5'-P-OP1	-6.29	100.03	105.70
69	A5	2114	U	C5-C6-N1	6.29	125.85	122.70
69	A5	2268	G	C4-N9-C1'	6.29	134.68	126.50
69	A5	2729	U	N1-C2-O2	6.29	127.21	122.80
69	A5	339	C	C4-C5-C6	-6.29	114.25	117.40
69	A5	3520	U	C5-C4-O4	6.29	129.68	125.90
70	B2	840	U	N3-C2-O2	-6.29	117.80	122.20
70	B2	1193	C	N3-C2-O2	-6.29	117.50	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	B2	1870	C	N1-C2-O2	6.29	122.68	118.90
69	A5	1627	U	N1-C2-O2	6.29	127.20	122.80
70	B2	626	U	N1-C2-O2	6.29	127.20	122.80
69	A5	2248	A	C2-N3-C4	6.29	113.74	110.60
50	AP	29	LEU	CA-CB-CG	6.28	129.75	115.30
69	A5	925	C	N1-C2-O2	6.28	122.67	118.90
69	A5	1981	A	C5-N7-C8	-6.28	100.76	103.90
69	A5	3755	A	N1-C6-N6	-6.28	114.83	118.60
69	A5	441	A	N1-C2-N3	-6.28	126.16	129.30
69	A5	1019	U	C6-N1-C2	-6.28	117.23	121.00
69	A5	1621	A	N9-C4-C5	-6.28	103.29	105.80
69	A5	1313	A	O5'-P-OP2	-6.28	100.05	105.70
69	A5	1691	A	N1-C2-N3	-6.28	126.16	129.30
38	A9	26	U	N3-C2-O2	-6.28	117.80	122.20
69	A5	368	C	C5-C6-N1	-6.28	117.86	121.00
69	A5	1116	G	P-O3'-C3'	6.28	127.23	119.70
69	A5	1898	C	C5-C6-N1	6.28	124.14	121.00
69	A5	1265	U	C6-N1-C2	-6.28	117.23	121.00
69	A5	2055	G	C4-C5-N7	6.28	113.31	110.80
69	A5	3362	G	N7-C8-N9	6.28	116.24	113.10
1	CO	112	SER	C-N-CD	-6.27	106.80	120.60
68	Cz	90	LEU	CA-CB-CG	6.27	129.73	115.30
69	A5	120	C	C5-C6-N1	6.27	124.14	121.00
69	A5	780	U	C5-C6-N1	6.27	125.84	122.70
70	B2	366	C	C6-N1-C2	-6.27	117.79	120.30
69	A5	553	A	C2-N3-C4	-6.27	107.47	110.60
69	A5	871	A	P-O3'-C3'	6.27	127.22	119.70
69	A5	1091	G	N1-C6-O6	-6.27	116.14	119.90
69	A5	1676	A	N1-C6-N6	-6.27	114.84	118.60
69	A5	2148	C	C6-N1-C2	-6.27	117.79	120.30
69	A5	2796	G	C4-C5-N7	6.27	113.31	110.80
69	A5	3872	C	N3-C2-O2	-6.27	117.51	121.90
69	A5	1369	C	N3-C2-O2	-6.26	117.52	121.90
69	A5	2733	G	N3-C2-N2	6.26	124.28	119.90
70	B2	1187	U	N3-C2-O2	-6.26	117.82	122.20
14	CP	82	ARG	NE-CZ-NH2	6.26	123.43	120.30
69	A5	984	U	C6-N1-C1'	-6.26	112.44	121.20
69	A5	997	U	N3-C4-O4	-6.26	115.02	119.40
69	A5	2744	C	N1-C2-O2	6.26	122.66	118.90
70	B2	38	C	N1-C2-O2	6.26	122.66	118.90
69	A5	3932	U	C5-C6-N1	6.26	125.83	122.70
70	B2	1844	C	C2-N1-C1'	6.25	125.68	118.80

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1019	U	O5'-P-OP1	-6.25	100.07	105.70
69	A5	444	C	N1-C2-O2	6.25	122.65	118.90
69	A5	1085	U	N3-C2-O2	-6.25	117.82	122.20
70	B2	978	C	N1-C2-O2	6.25	122.65	118.90
39	A7	119	C	C5-C6-N1	6.25	124.12	121.00
69	A5	1134	G	C5-C6-O6	6.25	132.35	128.60
69	A5	3494	C	N3-C2-O2	-6.25	117.53	121.90
69	A5	1122	U	N1-C2-N3	6.24	118.65	114.90
69	A5	1872	A	N1-C6-N6	6.24	122.35	118.60
69	A5	3345	A	C8-N9-C4	-6.24	103.30	105.80
69	A5	230	C	N3-C2-O2	-6.24	117.53	121.90
69	A5	1801	U	N1-C2-N3	6.24	118.64	114.90
69	A5	3218	C	C6-N1-C2	-6.24	117.80	120.30
69	A5	2783	C	C6-N1-C2	-6.24	117.81	120.30
38	A9	23	G	N3-C4-C5	6.24	131.72	128.60
39	A7	83	A	OP2-P-O3'	6.24	118.92	105.20
40	A8	84	U	C6-N1-C1'	-6.24	112.47	121.20
69	A5	237	G	C5-C6-O6	-6.24	124.86	128.60
69	A5	3670	G	N3-C4-N9	6.24	129.74	126.00
69	A5	372	U	N1-C2-O2	6.23	127.16	122.80
40	A8	98	U	C5-C4-O4	6.23	129.64	125.90
69	A5	1142	U	O5'-P-OP1	-6.23	100.09	105.70
69	A5	3501	C	O5'-P-OP1	-6.23	100.09	105.70
70	B2	1147	U	C2-N1-C1'	6.23	125.18	117.70
60	Af	100	LEU	CA-CB-CG	6.23	129.63	115.30
69	A5	749	U	N3-C4-O4	6.23	123.76	119.40
69	A5	1018	C	C6-N1-C2	-6.23	117.81	120.30
70	B2	1788	C	C2-N1-C1'	6.23	125.65	118.80
64	AG	84	TYR	C-N-CA	-6.23	106.13	121.70
69	A5	654	G	C5-N7-C8	-6.23	101.19	104.30
69	A5	2525	C	N3-C2-O2	-6.22	117.54	121.90
70	B2	1991	C	C6-N1-C2	-6.22	117.81	120.30
66	AI	148	MET	CA-C-N	6.22	130.89	117.20
69	A5	1369	C	C6-N1-C2	-6.22	117.81	120.30
69	A5	1531	U	C5-C6-N1	-6.22	119.59	122.70
69	A5	1592	U	C5-C4-O4	-6.22	122.17	125.90
69	A5	1864	U	N1-C2-O2	6.22	127.15	122.80
12	CS	82	LEU	CA-CB-CG	6.22	129.60	115.30
69	A5	1080	G	N1-C6-O6	-6.21	116.17	119.90
69	A5	2692	U	C6-N1-C1'	-6.21	112.50	121.20
69	A5	811	G	C4-N9-C1'	-6.21	118.42	126.50
70	B2	1169	C	C6-N1-C2	-6.21	117.81	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1544	U	C6-N1-C2	-6.21	117.27	121.00
69	A5	2147	C	N1-C2-O2	6.21	122.63	118.90
40	A8	44	C	N1-C2-O2	6.21	122.63	118.90
69	A5	3840	G	C8-N9-C4	-6.21	103.92	106.40
40	A8	11	G	C5-C6-O6	6.21	132.32	128.60
69	A5	2812	U	C2-N1-C1'	6.21	125.15	117.70
69	A5	3929	U	N1-C2-O2	6.21	127.15	122.80
40	A8	13	U	N3-C4-O4	-6.21	115.06	119.40
69	A5	100	G	N3-C4-C5	-6.21	125.50	128.60
69	A5	2172	C	C6-N1-C2	-6.21	117.82	120.30
69	A5	301	U	N3-C4-O4	-6.21	115.06	119.40
69	A5	3320	C	C5-C6-N1	6.21	124.10	121.00
69	A5	3936	A	C4-C5-N7	6.21	113.80	110.70
69	A5	72	C	N1-C2-O2	6.20	122.62	118.90
69	A5	2216	A	N1-C6-N6	-6.20	114.88	118.60
75	Ac	55	LEU	CA-CB-CG	6.20	129.57	115.30
69	A5	2191	G	C5-C6-O6	6.20	132.32	128.60
69	A5	3381	C	N1-C2-O2	6.20	122.62	118.90
69	A5	1801	U	O4'-C4'-C3'	-6.20	97.80	104.00
69	A5	2062	A	N9-C4-C5	-6.20	103.32	105.80
69	A5	2995	U	N3-C2-O2	-6.20	117.86	122.20
69	A5	1793	C	C6-N1-C1'	-6.20	113.36	120.80
40	A8	6	U	C6-N1-C2	-6.20	117.28	121.00
69	A5	1143	U	N3-C2-O2	-6.20	117.86	122.20
69	A5	213	A	C8-N9-C4	6.19	108.28	105.80
69	A5	1319	A	N9-C4-C5	-6.19	103.32	105.80
69	A5	1591	U	C5-C6-N1	6.19	125.80	122.70
69	A5	3167	A	N9-C4-C5	6.19	108.28	105.80
70	B2	1844	C	N1-C2-O2	6.19	122.61	118.90
69	A5	751	A	OP2-P-O3'	6.19	118.82	105.20
69	A5	1599	C	N1-C2-O2	6.19	122.61	118.90
69	A5	1726	G	C5-N7-C8	-6.19	101.20	104.30
69	A5	1981	A	C4-C5-C6	-6.19	113.91	117.00
69	A5	3489	A	O5'-P-OP2	-6.19	100.13	105.70
69	A5	3606	G	N3-C4-N9	6.19	129.72	126.00
69	A5	759	U	N3-C2-O2	-6.19	117.87	122.20
40	A8	44	C	OP1-P-OP2	-6.19	110.32	119.60
69	A5	561	A	C2-N3-C4	-6.19	107.51	110.60
69	A5	2546	G	N1-C6-O6	-6.19	116.19	119.90
69	A5	3482	G	N3-C4-C5	-6.19	125.51	128.60
69	A5	2584	G	N3-C4-N9	6.19	129.71	126.00
69	A5	1193	A	C8-N9-C1'	6.18	138.83	127.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3841	C	O5'-P-OP1	-6.18	100.13	105.70
69	A5	46	C	C2-N1-C1'	6.18	125.60	118.80
69	A5	2530	C	C5-C4-N4	-6.18	115.87	120.20
69	A5	3514	C	C2-N1-C1'	6.18	125.60	118.80
69	A5	1998	U	C5-C6-N1	6.18	125.79	122.70
69	A5	1159	C	P-O3'-C3'	6.18	127.11	119.70
40	A8	37	U	C2-N1-C1'	6.18	125.11	117.70
69	A5	1293	A	C8-N9-C4	-6.18	103.33	105.80
69	A5	849	U	N3-C2-O2	-6.18	117.88	122.20
69	A5	1542	C	C2-N1-C1'	6.18	125.59	118.80
69	A5	2729	U	N3-C2-O2	-6.18	117.88	122.20
69	A5	1164	G	C5-C6-O6	-6.17	124.90	128.60
69	A5	1274	A	C4-C5-C6	-6.17	113.91	117.00
69	A5	1005	G	OP2-P-O3'	6.17	118.78	105.20
69	A5	1026	G	C4-C5-N7	6.17	113.27	110.80
69	A5	1130	U	C6-N1-C2	-6.17	117.30	121.00
69	A5	1355	C	N3-C4-C5	6.17	124.37	121.90
69	A5	1390	C	N3-C4-C5	6.17	124.37	121.90
69	A5	1553	C	N1-C2-O2	6.17	122.60	118.90
69	A5	650	A	C6-N1-C2	6.17	122.30	118.60
69	A5	1193	A	C4-N9-C1'	-6.17	115.20	126.30
69	A5	3353	C	C6-N1-C2	-6.17	117.83	120.30
69	A5	796	A	N1-C6-N6	-6.17	114.90	118.60
69	A5	2198	G	N7-C8-N9	-6.17	110.02	113.10
69	A5	1794	G	C4-N9-C1'	6.16	134.51	126.50
69	A5	2193	C	C4-C5-C6	-6.16	114.32	117.40
69	A5	2786	U	N1-C2-O2	6.16	127.11	122.80
69	A5	279	U	C5-C6-N1	6.16	125.78	122.70
69	A5	1661	C	N3-C2-O2	-6.16	117.59	121.90
69	A5	2708	C	N1-C2-O2	6.16	122.60	118.90
69	A5	760	G	N3-C4-C5	6.16	131.68	128.60
69	A5	3730	G	N3-C4-C5	-6.16	125.52	128.60
69	A5	755	A	C4-C5-N7	6.16	113.78	110.70
69	A5	1725	A	C5-C6-N6	-6.16	118.77	123.70
69	A5	1893	C	C6-N1-C2	-6.16	117.84	120.30
69	A5	3398	C	N3-C2-O2	-6.16	117.59	121.90
69	A5	3846	U	N1-C2-N3	-6.16	111.21	114.90
39	A7	95	U	C5-C4-O4	6.16	129.59	125.90
69	A5	1070	G	OP1-P-O3'	6.16	118.74	105.20
69	A5	1861	A	C8-N9-C4	6.16	108.26	105.80
69	A5	999	U	C5-C6-N1	6.15	125.78	122.70
69	A5	1104	A	C5-C6-N1	6.15	120.78	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1594	U	C2-N1-C1'	6.15	125.08	117.70
69	A5	826	A	N1-C6-N6	-6.15	114.91	118.60
69	A5	874	G	C4-C5-N7	6.15	113.26	110.80
69	A5	2656	C	N1-C2-O2	6.15	122.59	118.90
69	A5	1388	C	C6-N1-C2	-6.14	117.84	120.30
69	A5	2727	U	C2-N1-C1'	6.14	125.07	117.70
38	A9	26	U	N1-C2-O2	6.14	127.10	122.80
69	A5	357	C	N1-C2-O2	6.14	122.58	118.90
69	A5	1364	A	N1-C2-N3	-6.14	126.23	129.30
70	B2	1107	A	N7-C8-N9	6.14	116.87	113.80
69	A5	1133	A	C5-C6-N1	6.14	120.77	117.70
69	A5	3607	C	N3-C4-C5	-6.14	119.44	121.90
69	A5	1725	A	N9-C4-C5	-6.14	103.34	105.80
11	CA	1	MET	CB-CG-SD	6.13	130.80	112.40
69	A5	2709	U	N3-C2-O2	-6.13	117.91	122.20
69	A5	3712	G	C6-C5-N7	6.13	134.08	130.40
70	B2	1924	C	C2-N1-C1'	6.13	125.55	118.80
10	CR	184	LEU	CA-CB-CG	6.13	129.40	115.30
40	A8	102	A	N3-C4-N9	-6.13	122.50	127.40
69	A5	2728	C	C5-C4-N4	-6.13	115.91	120.20
69	A5	2780	A	C8-N9-C4	6.13	108.25	105.80
70	B2	1991	C	N1-C2-O2	6.13	122.58	118.90
69	A5	1565	A	P-O3'-C3'	6.13	127.05	119.70
70	B2	1403	C	N3-C2-O2	-6.13	117.61	121.90
69	A5	375	C	C6-N1-C2	-6.12	117.85	120.30
39	A7	98	G	N3-C2-N2	-6.12	115.61	119.90
36	CE	119	LEU	CA-CB-CG	6.12	129.38	115.30
69	A5	915	C	N3-C2-O2	-6.12	117.61	121.90
15	CX	248	LEU	CA-CB-CG	6.12	129.38	115.30
69	A5	427	A	C5-C6-N1	6.12	120.76	117.70
69	A5	1004	C	N3-C4-C5	6.12	124.35	121.90
69	A5	807	A	C5-C6-N6	6.12	128.59	123.70
69	A5	1008	A	N7-C8-N9	6.12	116.86	113.80
69	A5	1134	G	N3-C2-N2	6.12	124.18	119.90
69	A5	1797	A	C4-N9-C1'	6.12	137.31	126.30
69	A5	33	C	N3-C4-C5	-6.12	119.45	121.90
69	A5	93	G	N9-C4-C5	6.12	107.85	105.40
69	A5	3281	G	C5-C6-N1	6.12	114.56	111.50
69	A5	3511	U	N1-C2-O2	6.12	127.08	122.80
69	A5	1069	A	N1-C6-N6	-6.11	114.93	118.60
69	A5	1085	U	N1-C2-O2	6.11	127.08	122.80
40	A8	44	C	C5-C6-N1	6.11	124.06	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1077	C	N3-C2-O2	-6.11	117.62	121.90
69	A5	1531	U	C5-C4-O4	6.11	129.57	125.90
69	A5	1719	G	C8-N9-C4	-6.11	103.96	106.40
69	A5	3236	A	C5-N7-C8	-6.11	100.85	103.90
69	A5	3474	G	O5'-P-OP2	-6.11	100.20	105.70
69	A5	37	G	N7-C8-N9	6.11	116.15	113.10
69	A5	754	A	C4-C5-N7	6.11	113.75	110.70
69	A5	2489	G	C4-C5-N7	6.11	113.24	110.80
69	A5	3342	C	C2-N3-C4	6.10	122.95	119.90
69	A5	870	U	N1-C2-O2	6.10	127.07	122.80
69	A5	1004	C	N1-C2-O2	6.10	122.56	118.90
69	A5	688	U	N1-C2-O2	6.10	127.07	122.80
69	A5	802	G	C5-C6-O6	6.10	132.26	128.60
69	A5	3613	G	C8-N9-C4	-6.10	103.96	106.40
69	A5	843	A	C8-N9-C4	6.10	108.24	105.80
69	A5	917	G	N1-C6-O6	-6.10	116.24	119.90
69	A5	1793	C	O5'-P-OP2	-6.10	100.21	105.70
69	A5	2517	A	N3-C4-N9	-6.10	122.52	127.40
40	A8	34	C	C5-C6-N1	6.09	124.05	121.00
69	A5	1164	G	C8-N9-C4	6.09	108.84	106.40
40	A8	108	A	C8-N9-C4	-6.09	103.36	105.80
69	A5	1008	A	C8-N9-C4	-6.09	103.36	105.80
69	A5	1018	C	N1-C2-O2	6.09	122.55	118.90
40	A8	30	G	C8-N9-C4	6.09	108.83	106.40
69	A5	1062	C	C6-N1-C2	-6.09	117.86	120.30
69	A5	1170	U	N3-C2-O2	-6.09	117.94	122.20
69	A5	3294	A	C2-N3-C4	6.09	113.64	110.60
70	B2	49	C	N1-C2-O2	6.09	122.55	118.90
40	A8	35	G	N1-C6-O6	-6.08	116.25	119.90
69	A5	1329	G	C8-N9-C1'	-6.08	119.09	127.00
69	A5	2676	U	O4'-C1'-N1	6.08	113.07	108.20
69	A5	2492	A	N1-C6-N6	6.08	122.25	118.60
70	B2	1960	A	C4-N9-C1'	6.08	137.25	126.30
69	A5	1542	C	C5-C6-N1	6.08	124.04	121.00
69	A5	2544	U	O5'-P-OP1	-6.08	100.23	105.70
69	A5	3680	A	N1-C6-N6	-6.08	114.95	118.60
69	A5	1333	C	N3-C2-O2	-6.08	117.65	121.90
69	A5	1768	G	C4-N9-C1'	6.08	134.40	126.50
69	A5	802	G	N9-C4-C5	-6.08	102.97	105.40
69	A5	12	C	O5'-P-OP1	-6.08	100.23	105.70
69	A5	348	A	C5-C6-N6	6.08	128.56	123.70
70	B2	348	C	N1-C2-O2	6.08	122.55	118.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	B2	335	U	N1-C2-O2	6.07	127.05	122.80
69	A5	1134	G	C8-N9-C4	-6.07	103.97	106.40
70	B2	1205	U	C6-N1-C2	-6.07	117.36	121.00
69	A5	136	C	N3-C2-O2	-6.07	117.65	121.90
69	A5	1713	U	N1-C2-O2	6.07	127.05	122.80
69	A5	3167	A	O5'-P-OP2	-6.07	100.24	105.70
69	A5	1199	C	C5-C6-N1	6.07	124.03	121.00
69	A5	1513	C	C5-C6-N1	6.07	124.03	121.00
69	A5	1733	A	C4-C5-N7	6.07	113.73	110.70
69	A5	2248	A	N1-C6-N6	-6.07	114.96	118.60
69	A5	2663	C	C6-N1-C2	-6.07	117.87	120.30
69	A5	2683	G	N3-C4-N9	6.07	129.64	126.00
69	A5	3167	A	C8-N9-C4	-6.07	103.37	105.80
69	A5	3309	A	O4'-C1'-N9	-6.07	103.35	108.20
39	A7	65	C	N1-C2-O2	6.06	122.54	118.90
69	A5	812	U	C6-N1-C2	-6.06	117.36	121.00
69	A5	1759	C	N1-C2-O2	6.06	122.54	118.90
69	A5	462	C	N1-C2-O2	6.06	122.54	118.90
69	A5	1796	A	C6-C5-N7	-6.06	128.06	132.30
69	A5	1748	C	C4-C5-C6	-6.06	114.37	117.40
69	A5	208	U	N1-C2-O2	6.06	127.04	122.80
69	A5	2684	C	C6-N1-C1'	-6.06	113.53	120.80
69	A5	788	C	C5-C6-N1	6.06	124.03	121.00
69	A5	2800	C	C6-N1-C2	-6.06	117.88	120.30
69	A5	3757	U	C5-C6-N1	6.06	125.73	122.70
69	A5	822	G	C2-N3-C4	6.06	114.93	111.90
40	A8	114	G	N7-C8-N9	6.05	116.13	113.10
69	A5	998	G	C5-C6-O6	-6.05	124.97	128.60
69	A5	1647	A	N1-C2-N3	-6.05	126.27	129.30
69	A5	340	U	N3-C2-O2	-6.05	117.96	122.20
69	A5	3269	G	C6-C5-N7	-6.05	126.77	130.40
69	A5	3969	G	C8-N9-C1'	-6.05	119.13	127.00
26	Ci	4	ARG	C-N-CA	6.05	136.82	121.70
69	A5	316	U	N3-C2-O2	-6.05	117.97	122.20
69	A5	926	U	P-O3'-C3'	6.05	126.96	119.70
69	A5	1370	C	N3-C2-O2	-6.05	117.67	121.90
69	A5	1756	G	N1-C6-O6	-6.05	116.27	119.90
69	A5	3712	G	N1-C6-O6	-6.05	116.27	119.90
70	B2	626	U	N3-C2-O2	-6.05	117.97	122.20
69	A5	130	C	N3-C2-O2	-6.05	117.67	121.90
69	A5	3450	G	OP1-P-O3'	6.05	118.50	105.20
69	A5	2804	U	C5-C6-N1	6.04	125.72	122.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1316	U	C6-N1-C2	-6.04	117.37	121.00
40	A8	43	A	N1-C6-N6	-6.04	114.97	118.60
69	A5	23	U	N1-C2-O2	6.04	127.03	122.80
69	A5	25	G	O5'-P-OP1	-6.04	100.26	105.70
69	A5	1027	A	C2-N3-C4	6.04	113.62	110.60
69	A5	1753	G	N1-C6-O6	6.04	123.52	119.90
69	A5	2129	C	P-O3'-C3'	6.04	126.95	119.70
70	B2	1273	U	N1-C2-O2	6.04	127.03	122.80
69	A5	439	U	C6-N1-C2	6.04	124.62	121.00
69	A5	1694	A	N1-C2-N3	-6.04	126.28	129.30
18	Cr	76	ARG	C-N-CD	-6.04	107.32	120.60
69	A5	3751	C	O4'-C1'-N1	6.04	113.03	108.20
29	CC	307	ASP	CB-CG-OD1	6.04	123.73	118.30
22	CF	172	ILE	CG1-CB-CG2	-6.03	98.13	111.40
39	A7	26	C	C6-N1-C2	-6.03	117.89	120.30
40	A8	25	C	C5-C6-N1	6.03	124.02	121.00
40	A8	102	A	C4-C5-C6	-6.03	113.98	117.00
70	B2	1033	U	C2-N1-C1'	6.03	124.94	117.70
69	A5	3440	C	C6-N1-C2	-6.03	117.89	120.30
69	A5	654	G	C4-C5-N7	6.03	113.21	110.80
69	A5	1142	U	C2-N1-C1'	6.03	124.93	117.70
69	A5	3415	U	C6-N1-C2	-6.03	117.39	121.00
70	B2	932	U	C6-N1-C2	-6.02	117.39	121.00
40	A8	15	G	O4'-C1'-N9	6.02	113.01	108.20
69	A5	1396	A	C4-N9-C1'	6.02	137.13	126.30
69	A5	17	C	C6-N1-C2	-6.01	117.89	120.30
69	A5	645	U	C6-N1-C2	-6.01	117.39	121.00
69	A5	652	G	C4-C5-N7	-6.01	108.39	110.80
69	A5	287	G	N9-C4-C5	-6.01	103.00	105.40
69	A5	301	U	N3-C4-C5	6.01	118.21	114.60
69	A5	1313	A	C6-N1-C2	6.01	122.21	118.60
69	A5	1390	C	C6-N1-C1'	-6.01	113.58	120.80
69	A5	1421	G	N3-C4-C5	-6.01	125.59	128.60
69	A5	1997	C	C6-N1-C2	-6.01	117.90	120.30
40	A8	9	G	N7-C8-N9	6.01	116.10	113.10
69	A5	780	U	C6-N1-C2	-6.01	117.39	121.00
69	A5	1140	G	C5-C6-O6	6.01	132.21	128.60
69	A5	1604	G	N3-C4-C5	-6.01	125.60	128.60
69	A5	2162	C	C2-N1-C1'	6.01	125.41	118.80
69	A5	1311	U	N1-C2-O2	6.01	127.00	122.80
69	A5	3481	G	N1-C6-O6	-6.00	116.30	119.90
69	A5	104	A	N7-C8-N9	6.00	116.80	113.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	B2	1832	C	C6-N1-C2	-6.00	117.90	120.30
69	A5	1101	A	N1-C6-N6	-6.00	115.00	118.60
69	A5	11	C	C6-N1-C2	-6.00	117.90	120.30
69	A5	879	U	N3-C2-O2	-6.00	118.00	122.20
69	A5	2194	G	C4-N9-C1'	6.00	134.30	126.50
69	A5	3235	A	C5-C6-N6	-6.00	118.90	123.70
69	A5	552	U	N3-C2-O2	-5.99	118.00	122.20
69	A5	631	A	N3-C4-C5	-5.99	122.61	126.80
69	A5	3462	A	N1-C2-N3	-5.99	126.30	129.30
69	A5	1284	A	O4'-C1'-N9	5.99	112.99	108.20
69	A5	2212	A	C4-C5-N7	5.99	113.69	110.70
69	A5	2721	C	C5-C6-N1	5.99	124.00	121.00
69	A5	1484	U	C2-N1-C1'	5.99	124.89	117.70
69	A5	2743	C	C4-C5-C6	-5.99	114.41	117.40
69	A5	1015	G	C5-C6-N1	5.99	114.49	111.50
69	A5	3551	U	C5-C6-N1	5.99	125.69	122.70
69	A5	3716	C	N3-C4-C5	5.99	124.30	121.90
69	A5	1108	G	C4-C5-C6	5.99	122.39	118.80
70	B2	1120	C	N3-C2-O2	-5.99	117.71	121.90
69	A5	1724	A	C6-C5-N7	-5.98	128.11	132.30
69	A5	3727	A	N7-C8-N9	-5.98	110.81	113.80
69	A5	370	A	OP1-P-OP2	-5.98	110.62	119.60
69	A5	1971	C	C6-N1-C2	-5.98	117.91	120.30
69	A5	527	U	N3-C2-O2	-5.98	118.02	122.20
69	A5	31	C	N3-C2-O2	-5.98	117.72	121.90
69	A5	298	U	OP1-P-OP2	-5.98	110.64	119.60
69	A5	2513	G	N3-C4-N9	5.97	129.59	126.00
69	A5	3633	U	C5-C6-N1	5.97	125.69	122.70
69	A5	440	U	C6-N1-C2	-5.97	117.42	121.00
69	A5	1094	A	C5-C6-N1	5.97	120.69	117.70
69	A5	1177	U	C5-C6-N1	5.97	125.69	122.70
69	A5	1710	G	C4-C5-N7	5.97	113.19	110.80
69	A5	1145	C	C2-N1-C1'	5.97	125.36	118.80
39	A7	60	C	C5-C6-N1	5.97	123.98	121.00
40	A8	95	A	O5'-P-OP2	-5.97	100.33	105.70
69	A5	883	U	C4-C5-C6	-5.97	116.12	119.70
69	A5	1681	G	N1-C6-O6	-5.97	116.32	119.90
69	A5	2740	C	C5-C6-N1	5.97	123.98	121.00
69	A5	3193	C	C6-N1-C2	-5.97	117.91	120.30
69	A5	3593	A	N1-C6-N6	-5.97	115.02	118.60
69	A5	842	A	O5'-P-OP1	-5.96	100.33	105.70
69	A5	1165	A	C2-N3-C4	5.96	113.58	110.60

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2530	C	N3-C4-N4	5.96	122.17	118.00
69	A5	3718	A	O5'-P-OP2	-5.96	100.33	105.70
40	A8	114	G	C8-N9-C4	-5.96	104.02	106.40
69	A5	3714	U	C6-N1-C2	-5.96	117.42	121.00
69	A5	3716	C	C2-N1-C1'	5.96	125.36	118.80
69	A5	1176	A	O5'-P-OP2	-5.96	100.34	105.70
69	A5	1605	U	N1-C2-O2	5.96	126.97	122.80
69	A5	2194	G	N3-C4-N9	5.96	129.58	126.00
69	A5	3184	U	N3-C2-O2	-5.96	118.03	122.20
69	A5	1909	U	C5-C6-N1	5.96	125.68	122.70
69	A5	2523	A	N9-C4-C5	5.96	108.18	105.80
69	A5	798	C	C2-N1-C1'	5.95	125.35	118.80
69	A5	995	G	N7-C8-N9	-5.95	110.12	113.10
69	A5	1062	C	C5-C6-N1	5.95	123.98	121.00
69	A5	1659	A	O4'-C1'-N9	-5.95	103.44	108.20
69	A5	2106	C	O5'-P-OP1	-5.95	100.34	105.70
69	A5	2177	G	C5-C6-O6	5.95	132.17	128.60
5	Ca	66	ARG	C-N-CA	5.95	136.57	121.70
69	A5	1122	U	N3-C4-O4	-5.95	115.23	119.40
69	A5	2561	A	N1-C6-N6	-5.95	115.03	118.60
69	A5	3887	U	C5-C4-O4	5.95	129.47	125.90
69	A5	1739	U	C6-N1-C2	-5.95	117.43	121.00
69	A5	2603	U	C5-C6-N1	5.95	125.67	122.70
69	A5	3138	G	N3-C4-N9	5.95	129.57	126.00
70	B2	1844	C	C6-N1-C2	-5.95	117.92	120.30
69	A5	524	A	O5'-P-OP2	-5.95	100.35	105.70
39	A7	91	C	C2-N1-C1'	5.95	125.34	118.80
69	A5	630	U	N1-C2-O2	5.95	126.96	122.80
69	A5	1407	C	P-O3'-C3'	5.95	126.83	119.70
69	A5	3251	C	N3-C4-N4	-5.94	113.84	118.00
69	A5	789	G	C4-C5-N7	5.94	113.18	110.80
69	A5	3192	C	C5-C6-N1	5.94	123.97	121.00
69	A5	567	A	N7-C8-N9	5.94	116.77	113.80
69	A5	3624	C	C5-C6-N1	5.94	123.97	121.00
69	A5	1735	G	N1-C6-O6	-5.94	116.34	119.90
69	A5	1608	G	N7-C8-N9	5.94	116.07	113.10
69	A5	242	C	N3-C2-O2	-5.93	117.75	121.90
69	A5	285	G	C6-C5-N7	-5.93	126.84	130.40
69	A5	1208	U	N3-C2-O2	-5.93	118.05	122.20
69	A5	831	A	N1-C2-N3	-5.93	126.33	129.30
69	A5	1423	C	C6-N1-C2	-5.93	117.93	120.30
69	A5	2109	G	O5'-P-OP2	-5.93	100.36	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2469	U	N1-C2-O2	5.93	126.95	122.80
69	A5	2812	U	N3-C2-O2	-5.93	118.05	122.20
69	A5	1338	U	N3-C2-O2	-5.93	118.05	122.20
69	A5	1588	A	N3-C4-N9	5.93	132.15	127.40
69	A5	2092	U	C5-C6-N1	5.93	125.67	122.70
69	A5	3795	G	N3-C4-C5	-5.93	125.64	128.60
70	B2	416	C	N1-C2-O2	5.93	122.46	118.90
69	A5	874	G	C8-N9-C1'	-5.93	119.29	127.00
69	A5	3343	A	C8-N9-C4	-5.93	103.43	105.80
69	A5	1369	C	C5-C6-N1	5.93	123.96	121.00
69	A5	1676	A	N1-C2-N3	-5.93	126.34	129.30
69	A5	3539	C	N3-C4-C5	5.93	124.27	121.90
69	A5	802	G	N3-C2-N2	5.93	124.05	119.90
69	A5	1383	A	C3'-C2'-C1'	-5.93	96.76	101.50
69	A5	1631	U	C5-C6-N1	5.93	125.66	122.70
70	B2	1929	U	N1-C2-O2	5.93	126.95	122.80
69	A5	910	C	C5-C4-N4	5.92	124.35	120.20
69	A5	752	U	OP2-P-O3'	5.92	118.23	105.20
69	A5	425	A	C6-N1-C2	5.92	122.15	118.60
69	A5	1551	U	OP2-P-O3'	5.92	118.22	105.20
70	B2	1546	U	P-O3'-C3'	5.92	126.81	119.70
69	A5	426	A	N1-C6-N6	-5.92	115.05	118.60
69	A5	3846	U	N1-C2-O2	5.92	126.94	122.80
69	A5	3918	A	N7-C8-N9	5.92	116.76	113.80
69	A5	448	A	N1-C2-N3	-5.92	126.34	129.30
69	A5	3677	U	N1-C2-O2	5.92	126.94	122.80
69	A5	1078	G	C8-N9-C4	-5.91	104.04	106.40
69	A5	2700	C	N3-C2-O2	-5.91	117.76	121.90
69	A5	37	G	C8-N9-C4	-5.91	104.04	106.40
69	A5	752	U	C5-C6-N1	5.91	125.66	122.70
69	A5	1325	C	N1-C2-O2	5.91	122.44	118.90
69	A5	3487	A	N7-C8-N9	5.91	116.75	113.80
70	B2	1949	A	P-O3'-C3'	5.91	126.79	119.70
39	A7	52	U	C2-N1-C1'	5.91	124.79	117.70
69	A5	844	C	C6-N1-C2	-5.91	117.94	120.30
69	A5	1332	C	N3-C2-O2	-5.91	117.77	121.90
69	A5	3461	C	C5-C6-N1	5.91	123.95	121.00
69	A5	1264	U	N3-C2-O2	-5.91	118.07	122.20
69	A5	1423	C	N3-C2-O2	-5.91	117.77	121.90
69	A5	2755	G	C4-C5-N7	5.91	113.16	110.80
69	A5	2038	A	N1-C6-N6	5.90	122.14	118.60
69	A5	2155	A	N1-C2-N3	5.90	132.25	129.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3677	U	C3'-C2'-C1'	-5.90	96.78	101.50
69	A5	680	C	C6-N1-C2	-5.90	117.94	120.30
69	A5	1028	U	N3-C4-O4	-5.90	115.27	119.40
69	A5	1680	U	C5-C6-N1	5.90	125.65	122.70
69	A5	2649	A	N7-C8-N9	5.90	116.75	113.80
69	A5	2543	C	N1-C2-O2	5.89	122.44	118.90
69	A5	3264	A	O5'-P-OP2	-5.89	100.39	105.70
69	A5	3758	G	C6-C5-N7	-5.89	126.86	130.40
69	A5	778	C	C5-C6-N1	5.89	123.95	121.00
69	A5	1148	C	C6-N1-C2	-5.89	117.94	120.30
69	A5	2062	A	C8-N9-C4	5.89	108.16	105.80
69	A5	3492	G	N7-C8-N9	5.89	116.05	113.10
2	CL	160	GLN	N-CA-C	5.89	126.91	111.00
69	A5	96	G	O4'-C1'-N9	5.89	112.91	108.20
69	A5	1000	G	C5-C6-N1	5.89	114.44	111.50
69	A5	1100	G	C4-C5-N7	5.89	113.16	110.80
69	A5	1131	C	C6-N1-C2	-5.89	117.94	120.30
69	A5	3512	U	N3-C2-O2	-5.89	118.08	122.20
69	A5	2169	U	C4-C5-C6	-5.89	116.17	119.70
70	B2	1648	C	C6-N1-C1'	-5.89	113.73	120.80
69	A5	425	A	N1-C6-N6	5.89	122.13	118.60
69	A5	662	A	N1-C2-N3	-5.89	126.36	129.30
69	A5	862	U	C5-C4-O4	5.89	129.43	125.90
69	A5	1863	U	C6-N1-C2	-5.89	117.47	121.00
69	A5	3908	U	N3-C2-O2	-5.89	118.08	122.20
39	A7	80	U	N3-C2-O2	-5.88	118.08	122.20
69	A5	173	A	C8-N9-C4	-5.88	103.45	105.80
69	A5	1359	G	N3-C4-N9	5.88	129.53	126.00
69	A5	1574	A	N3-C4-N9	5.88	132.11	127.40
69	A5	3399	C	N1-C2-O2	5.88	122.43	118.90
27	Ck	42	LEU	CA-CB-CG	5.88	128.83	115.30
69	A5	767	A	C4-C5-N7	5.88	113.64	110.70
69	A5	868	A	C2-N3-C4	5.88	113.54	110.60
70	B2	422	A	P-O3'-C3'	5.88	126.76	119.70
40	A8	14	G	C8-N9-C4	-5.88	104.05	106.40
69	A5	814	U	O5'-P-OP1	-5.88	100.41	105.70
69	A5	1726	G	C6-C5-N7	-5.88	126.87	130.40
70	B2	116	U	C5-C6-N1	5.88	125.64	122.70
69	A5	751	A	O5'-P-OP1	-5.88	100.41	105.70
69	A5	1074	U	N1-C2-O2	5.88	126.91	122.80
69	A5	1426	U	C6-N1-C2	-5.88	117.47	121.00
69	A5	1567	G	O5'-P-OP2	-5.88	100.41	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2153	C	N3-C4-C5	5.88	124.25	121.90
69	A5	3422	A	N1-C6-N6	-5.88	115.07	118.60
69	A5	1350	A	C4-C5-N7	5.88	113.64	110.70
69	A5	3184	U	N1-C2-O2	5.88	126.91	122.80
70	B2	849	U	C2-N1-C1'	5.88	124.75	117.70
70	B2	1824	C	N1-C2-O2	5.88	122.42	118.90
69	A5	3506	U	N1-C2-O2	5.87	126.91	122.80
69	A5	3710	U	N1-C2-O2	5.87	126.91	122.80
69	A5	3753	A	O4'-C1'-N9	5.87	112.90	108.20
69	A5	1739	U	N3-C2-O2	-5.87	118.09	122.20
69	A5	3226	A	N1-C6-N6	-5.87	115.08	118.60
69	A5	3491	C	N3-C4-N4	-5.87	113.89	118.00
69	A5	117	C	N1-C2-O2	5.87	122.42	118.90
69	A5	2147	C	N3-C2-O2	-5.87	117.79	121.90
70	B2	1185	U	P-O3'-C3'	5.87	126.74	119.70
70	B2	1345	U	C2-N1-C1'	5.87	124.74	117.70
70	B2	1727	U	C2-N1-C1'	5.87	124.74	117.70
69	A5	100	G	C5-C6-N1	5.87	114.43	111.50
69	A5	1512	C	C5-C6-N1	5.87	123.93	121.00
69	A5	225	U	P-O3'-C3'	5.86	126.74	119.70
69	A5	3795	G	C2-N3-C4	5.86	114.83	111.90
69	A5	3569	C	C5-C6-N1	5.86	123.93	121.00
25	Cf	63	LEU	CB-CG-CD1	-5.86	101.04	111.00
39	A7	66	G	O5'-P-OP1	-5.86	100.43	105.70
70	B2	1816	C	N1-C2-O2	5.86	122.42	118.90
40	A8	108	A	P-O3'-C3'	5.86	126.73	119.70
39	A7	102	C	C6-N1-C2	-5.86	117.96	120.30
69	A5	1193	A	C2-N3-C4	-5.86	107.67	110.60
69	A5	2160	C	C6-N1-C2	-5.86	117.96	120.30
40	A8	102	A	N3-C4-C5	5.86	130.90	126.80
69	A5	990	U	N1-C2-O2	5.86	126.90	122.80
69	A5	2199	A	C4-C5-C6	-5.86	114.07	117.00
70	B2	399	C	C6-N1-C2	-5.86	117.96	120.30
69	A5	1153	G	O5'-P-OP1	-5.85	100.43	105.70
69	A5	1175	C	N1-C2-O2	5.85	122.41	118.90
69	A5	1793	C	N1-C2-O2	5.85	122.41	118.90
69	A5	2148	C	N1-C2-O2	5.85	122.41	118.90
69	A5	3246	G	C2-N3-C4	-5.85	108.97	111.90
69	A5	427	A	O5'-P-OP2	-5.85	100.43	105.70
39	A7	95	U	N1-C2-O2	5.85	126.89	122.80
69	A5	1196	A	C4-C5-N7	5.85	113.62	110.70
69	A5	1631	U	C6-N1-C1'	-5.85	113.01	121.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2718	U	N1-C2-O2	5.85	126.89	122.80
69	A5	1011	U	C5-C6-N1	5.85	125.62	122.70
69	A5	1515	U	C6-N1-C2	-5.85	117.49	121.00
69	A5	1080	G	C8-N9-C4	5.84	108.74	106.40
69	A5	1596	A	C8-N9-C4	-5.84	103.46	105.80
69	A5	664	U	C5-C6-N1	5.84	125.62	122.70
69	A5	1686	A	C5-N7-C8	-5.84	100.98	103.90
69	A5	1316	U	N3-C4-C5	-5.84	111.10	114.60
69	A5	1332	C	N1-C2-O2	5.84	122.40	118.90
69	A5	2055	G	C6-C5-N7	-5.84	126.90	130.40
69	A5	2476	U	C5-C6-N1	5.84	125.62	122.70
69	A5	546	G	N1-C6-O6	5.84	123.40	119.90
69	A5	2726	A	O5'-P-OP1	5.84	117.70	110.70
69	A5	3809	U	N3-C2-O2	-5.84	118.11	122.20
15	CX	186	VAL	C-N-CA	5.83	146.50	122.00
69	A5	1688	A	N1-C2-N3	-5.83	126.38	129.30
69	A5	2162	C	C6-N1-C2	-5.83	117.97	120.30
69	A5	1365	U	C6-N1-C2	-5.83	117.50	121.00
69	A5	1659	A	N1-C6-N6	-5.83	115.10	118.60
40	A8	27	C	C5-C4-N4	5.83	124.28	120.20
69	A5	1568	A	N1-C2-N3	-5.83	126.39	129.30
69	A5	1712	C	C6-N1-C2	-5.83	117.97	120.30
70	B2	49	C	C5-C6-N1	5.83	123.91	121.00
69	A5	72	C	N3-C2-O2	-5.83	117.82	121.90
69	A5	103	A	C4-C5-C6	-5.83	114.09	117.00
69	A5	2580	C	C5-C6-N1	5.83	123.91	121.00
69	A5	3481	G	C8-N9-C4	-5.83	104.07	106.40
69	A5	3403	G	OP1-P-O3'	5.82	118.01	105.20
29	CC	93	GLY	N-CA-C	5.82	127.66	113.10
69	A5	1673	C	C6-N1-C2	-5.82	117.97	120.30
69	A5	1892	C	C6-N1-C2	-5.82	117.97	120.30
69	A5	772	G	N9-C4-C5	-5.82	103.07	105.40
69	A5	787	C	C5-C4-N4	5.82	124.27	120.20
69	A5	3661	C	C6-N1-C2	-5.82	117.97	120.30
69	A5	3811	A	C6-N1-C2	5.82	122.09	118.60
70	B2	618	G	C8-N9-C1'	-5.82	119.44	127.00
69	A5	1515	U	C5-C6-N1	5.82	125.61	122.70
69	A5	856	A	N9-C4-C5	-5.81	103.47	105.80
69	A5	1733	A	N9-C4-C5	-5.81	103.47	105.80
40	A8	17	U	N3-C2-O2	-5.81	118.13	122.20
69	A5	856	A	C5-C6-N6	-5.81	119.05	123.70
69	A5	3141	A	C5-N7-C8	-5.81	100.99	103.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3363	G	N7-C8-N9	5.81	116.01	113.10
69	A5	2510	A	N7-C8-N9	5.81	116.71	113.80
69	A5	675	C	N1-C2-O2	5.81	122.39	118.90
69	A5	1316	U	N3-C2-O2	-5.81	118.13	122.20
69	A5	3149	U	N1-C2-O2	5.81	126.87	122.80
69	A5	1679	U	C5-C6-N1	5.81	125.60	122.70
69	A5	2745	A	N1-C2-N3	-5.81	126.40	129.30
69	A5	3760	A	P-O3'-C3'	5.81	126.67	119.70
69	A5	3822	C	C5-C6-N1	5.81	123.90	121.00
16	CY	30	MET	CA-CB-CG	5.80	123.17	113.30
39	A7	95	U	N3-C2-O2	-5.80	118.14	122.20
69	A5	541	A	C8-N9-C4	5.80	108.12	105.80
69	A5	1527	C	OP2-P-O3'	5.80	117.97	105.20
5	Ca	13	ARG	NE-CZ-NH2	-5.80	117.40	120.30
69	A5	1143	U	OP2-P-O3'	5.80	117.97	105.20
69	A5	1784	A	N7-C8-N9	-5.80	110.90	113.80
69	A5	2772	G	C2-N3-C4	5.80	114.80	111.90
69	A5	2995	U	N1-C2-O2	5.80	126.86	122.80
69	A5	1146	U	C6-N1-C2	-5.80	117.52	121.00
69	A5	1360	U	C5-C4-O4	5.80	129.38	125.90
69	A5	2007	U	O4'-C1'-N1	5.80	112.84	108.20
69	A5	2796	G	N1-C6-O6	5.80	123.38	119.90
70	B2	1020	U	N3-C2-O2	-5.80	118.14	122.20
69	A5	1565	A	N7-C8-N9	5.80	116.70	113.80
69	A5	2512	U	N3-C2-O2	-5.80	118.14	122.20
70	B2	1273	U	C2-N1-C1'	5.80	124.66	117.70
38	A9	12	C	C5-C6-N1	5.80	123.90	121.00
69	A5	2169	U	C2-N3-C4	5.80	130.48	127.00
55	AZ	87	LEU	CA-CB-CG	5.79	128.62	115.30
69	A5	1146	U	O5'-P-OP1	-5.79	100.48	105.70
70	B2	307	U	C5-C6-N1	5.79	125.60	122.70
69	A5	1420	A	C8-N9-C4	-5.79	103.48	105.80
69	A5	2573	C	C6-N1-C2	-5.79	117.98	120.30
70	B2	38	C	C6-N1-C2	-5.79	117.98	120.30
69	A5	1566	U	N3-C2-O2	-5.79	118.15	122.20
69	A5	1800	U	N1-C2-O2	5.79	126.85	122.80
69	A5	2155	A	C6-C5-N7	-5.79	128.25	132.30
69	A5	2163	A	C8-N9-C4	5.79	108.11	105.80
69	A5	2777	A	C4-C5-C6	-5.79	114.11	117.00
69	A5	1079	U	C6-N1-C1'	-5.78	113.10	121.20
69	A5	1358	U	N3-C4-O4	-5.78	115.35	119.40
69	A5	1538	U	C5-C6-N1	5.78	125.59	122.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2712	U	N3-C2-O2	-5.78	118.15	122.20
69	A5	3549	C	C6-N1-C2	-5.78	117.99	120.30
70	B2	1163	C	C2-N3-C4	5.78	122.79	119.90
69	A5	764	A	OP1-P-O3'	5.78	117.92	105.20
69	A5	881	G	C4-C5-N7	-5.78	108.49	110.80
69	A5	1116	G	O5'-P-OP2	-5.78	100.50	105.70
69	A5	1000	G	N1-C2-N2	5.78	121.40	116.20
69	A5	1595	G	O4'-C1'-N9	5.78	112.82	108.20
69	A5	2268	G	C8-N9-C1'	-5.78	119.49	127.00
69	A5	2812	U	N1-C2-O2	5.78	126.84	122.80
69	A5	3591	A	C4-N9-C1'	-5.78	115.90	126.30
69	A5	3929	U	N3-C2-O2	-5.78	118.16	122.20
70	B2	878	C	C6-N1-C1'	-5.77	113.87	120.80
69	A5	1709	A	C4-C5-C6	-5.77	114.11	117.00
69	A5	3297	C	C5-C6-N1	5.77	123.88	121.00
69	A5	3431	C	C6-N1-C2	-5.77	117.99	120.30
40	A8	18	C	N3-C2-O2	-5.77	117.86	121.90
69	A5	2243	G	N3-C4-C5	-5.77	125.72	128.60
69	A5	1026	G	N3-C4-N9	5.77	129.46	126.00
69	A5	1801	U	N1-C1'-C2'	-5.77	105.66	112.00
69	A5	1741	G	C8-N9-C4	-5.76	104.09	106.40
69	A5	1866	G	C6-N1-C2	-5.76	121.64	125.10
69	A5	2091	A	O4'-C1'-N9	5.76	112.81	108.20
69	A5	2773	G	C4-C5-N7	-5.76	108.49	110.80
69	A5	1019	U	N3-C2-O2	-5.76	118.17	122.20
40	A8	32	G	C5-C6-O6	5.76	132.06	128.60
36	CE	193	VAL	C-N-CD	-5.76	107.93	120.60
69	A5	2110	A	C2-N3-C4	5.76	113.48	110.60
69	A5	3438	C	C5-C6-N1	5.76	123.88	121.00
70	B2	1930	U	N3-C2-O2	-5.76	118.17	122.20
69	A5	1023	C	C6-N1-C2	-5.76	118.00	120.30
69	A5	2737	C	C6-N1-C2	-5.76	118.00	120.30
69	A5	3143	U	N1-C2-O2	5.76	126.83	122.80
69	A5	3969	G	C6-C5-N7	-5.76	126.95	130.40
69	A5	1063	C	N3-C2-O2	-5.75	117.87	121.90
69	A5	1137	G	OP1-P-O3'	5.75	117.86	105.20
69	A5	405	A	N1-C6-N6	5.75	122.05	118.60
69	A5	797	A	N1-C6-N6	-5.75	115.15	118.60
69	A5	3807	G	C6-C5-N7	-5.75	126.95	130.40
69	A5	3245	U	C6-N1-C2	-5.75	117.55	121.00
69	A5	122	C	N1-C2-O2	5.75	122.35	118.90
69	A5	1158	C	N3-C2-O2	-5.75	117.88	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1158	C	C6-N1-C2	-5.75	118.00	120.30
69	A5	2768	A	N1-C2-N3	-5.75	126.43	129.30
58	AD	31	LEU	CA-CB-CG	5.75	128.52	115.30
69	A5	1139	U	N1-C2-O2	5.75	126.82	122.80
69	A5	3757	U	C4-C5-C6	-5.74	116.25	119.70
9	CQ	65	ARG	CG-CD-NE	5.74	123.86	111.80
69	A5	1166	U	C5-C6-N1	5.74	125.57	122.70
69	A5	2655	C	N3-C2-O2	-5.74	117.88	121.90
69	A5	1733	A	O5'-P-OP2	-5.74	100.53	105.70
11	CA	1	MET	C-N-CA	5.74	134.35	122.30
21	CB	141	LEU	CA-CB-CG	5.74	128.50	115.30
69	A5	826	A	C8-N9-C4	-5.74	103.50	105.80
69	A5	2523	A	N7-C8-N9	5.74	116.67	113.80
69	A5	67	A	C8-N9-C4	-5.74	103.50	105.80
25	Cf	110	ARG	C-N-CA	5.74	136.04	121.70
69	A5	333	C	C6-N1-C2	-5.74	118.01	120.30
69	A5	458	A	C8-N9-C4	-5.74	103.51	105.80
69	A5	1134	G	N1-C2-N2	-5.74	111.04	116.20
69	A5	1784	A	N9-C4-C5	-5.74	103.51	105.80
69	A5	1294	U	C5-C6-N1	5.73	125.57	122.70
69	A5	3003	C	C2-N1-C1'	5.73	125.11	118.80
69	A5	1069	A	C5-C6-N1	5.73	120.56	117.70
69	A5	1370	C	N1-C2-O2	5.73	122.34	118.90
69	A5	772	G	C4-C5-N7	5.73	113.09	110.80
69	A5	868	A	N1-C2-N3	-5.73	126.44	129.30
69	A5	17	C	C5-C6-N1	5.72	123.86	121.00
69	A5	255	C	C6-N1-C2	-5.72	118.01	120.30
69	A5	444	C	N3-C2-O2	-5.72	117.89	121.90
69	A5	670	G	C8-N9-C1'	5.72	134.44	127.00
69	A5	3807	G	C8-N9-C1'	-5.72	119.56	127.00
69	A5	1370	C	C5-C6-N1	5.72	123.86	121.00
69	A5	2792	G	N1-C6-O6	-5.72	116.47	119.90
69	A5	3131	C	C5-C6-N1	5.72	123.86	121.00
70	B2	840	U	N1-C2-O2	5.72	126.81	122.80
69	A5	1095	G	C4-N9-C1'	5.72	133.94	126.50
69	A5	1101	A	O5'-P-OP1	5.72	117.56	110.70
69	A5	880	A	C8-N9-C4	5.72	108.09	105.80
69	A5	1173	U	C5-C6-N1	5.72	125.56	122.70
69	A5	3673	G	N9-C4-C5	-5.72	103.11	105.40
69	A5	56	A	OP1-P-OP2	-5.72	111.03	119.60
69	A5	1112	G	N3-C2-N2	5.72	123.90	119.90
69	A5	1116	G	C5-C6-N1	5.72	114.36	111.50

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1713	U	C5-C6-N1	5.72	125.56	122.70
69	A5	2243	G	N1-C6-O6	-5.72	116.47	119.90
70	B2	1992	A	P-O3'-C3'	5.72	126.56	119.70
34	CJ	160	HIS	N-CA-C	5.71	126.43	111.00
69	A5	767	A	C5-N7-C8	-5.71	101.04	103.90
69	A5	3368	C	C6-N1-C1'	-5.71	113.94	120.80
70	B2	366	C	C5-C6-N1	5.71	123.86	121.00
69	A5	1176	A	C4-C5-C6	-5.71	114.14	117.00
20	Cb	76	LEU	CA-CB-CG	5.71	128.43	115.30
69	A5	440	U	C5-C6-N1	5.71	125.56	122.70
69	A5	3400	U	N3-C2-O2	-5.71	118.20	122.20
69	A5	2239	C	N1-C2-O2	5.71	122.33	118.90
69	A5	2517	A	C4-C5-N7	5.71	113.55	110.70
69	A5	2715	C	N3-C2-O2	-5.71	117.90	121.90
2	CL	86	GLY	N-CA-C	-5.71	98.83	113.10
69	A5	58	G	N1-C2-N3	-5.71	120.48	123.90
69	A5	1417	G	N3-C4-N9	5.71	129.42	126.00
69	A5	3655	U	OP1-P-O3'	5.71	117.76	105.20
69	A5	1418	A	C5-C6-N1	5.70	120.55	117.70
69	A5	1710	G	C5-C6-O6	-5.70	125.18	128.60
40	A8	26	U	N3-C2-O2	-5.70	118.21	122.20
40	A8	29	U	N3-C2-O2	-5.70	118.21	122.20
69	A5	1057	G	O4'-C1'-N9	5.70	112.76	108.20
69	A5	3462	A	O4'-C1'-N9	5.70	112.76	108.20
69	A5	1753	G	C5-C6-O6	-5.70	125.18	128.60
69	A5	1908	A	N3-C4-N9	5.70	131.96	127.40
69	A5	1983	A	C6-N1-C2	5.70	122.02	118.60
69	A5	662	A	C2-N3-C4	5.69	113.45	110.60
69	A5	1108	G	C8-N9-C1'	-5.69	119.60	127.00
69	A5	1115	A	C8-N9-C4	-5.69	103.52	105.80
69	A5	1144	C	C5-C6-N1	5.69	123.85	121.00
69	A5	3459	C	N1-C2-O2	5.69	122.32	118.90
21	CB	248	LEU	CA-CB-CG	5.69	128.39	115.30
69	A5	995	G	N3-C4-N9	5.69	129.41	126.00
69	A5	1095	G	N9-C4-C5	5.69	107.67	105.40
69	A5	1118	C	N3-C4-N4	-5.69	114.02	118.00
69	A5	1676	A	N7-C8-N9	-5.69	110.96	113.80
39	A7	47	C	C6-N1-C2	-5.69	118.03	120.30
69	A5	3807	G	C4-N9-C1'	5.69	133.89	126.50
69	A5	3932	U	N1-C2-O2	5.69	126.78	122.80
69	A5	1799	U	OP1-P-O3'	5.69	117.71	105.20
50	AP	28	LEU	CA-CB-CG	5.68	128.38	115.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1075	G	C8-N9-C4	5.68	108.67	106.40
34	CJ	103	ASN	N-CA-C	5.68	126.34	111.00
39	A7	17	C	N1-C2-O2	5.68	122.31	118.90
69	A5	819	U	C5-C4-O4	-5.68	122.49	125.90
69	A5	927	A	C8-N9-C4	-5.68	103.53	105.80
70	B2	379	U	O5'-P-OP1	-5.68	100.59	105.70
69	A5	1676	A	C5-N7-C8	5.68	106.74	103.90
69	A5	3347	G	OP2-P-O3'	5.68	117.70	105.20
69	A5	90	G	OP1-P-OP2	-5.68	111.08	119.60
69	A5	240	G	C4-N9-C1'	5.68	133.88	126.50
69	A5	2649	A	C5-N7-C8	-5.68	101.06	103.90
69	A5	1194	A	O5'-P-OP2	-5.68	100.59	105.70
69	A5	1801	U	C2-N1-C1'	-5.68	110.89	117.70
40	A8	100	G	N3-C4-C5	5.68	131.44	128.60
69	A5	2739	A	N1-C6-N6	-5.68	115.19	118.60
69	A5	2783	C	N3-C4-N4	-5.68	114.03	118.00
69	A5	3309	A	C5-N7-C8	-5.68	101.06	103.90
69	A5	825	C	C6-N1-C2	-5.67	118.03	120.30
69	A5	3281	G	N1-C2-N2	5.67	121.31	116.20
69	A5	1785	G	O4'-C1'-N9	5.67	112.74	108.20
69	A5	294	U	C2-N3-C4	-5.67	123.60	127.00
69	A5	752	U	C2-N1-C1'	-5.67	110.89	117.70
69	A5	1609	U	N1-C2-O2	5.67	126.77	122.80
69	A5	2700	C	N1-C2-O2	5.67	122.30	118.90
69	A5	1121	A	O4'-C1'-N9	-5.67	103.66	108.20
69	A5	1685	G	N1-C6-O6	-5.67	116.50	119.90
69	A5	3729	A	C8-N9-C4	-5.67	103.53	105.80
69	A5	3894	C	N1-C2-O2	5.67	122.30	118.90
69	A5	3969	G	N3-C4-N9	5.67	129.40	126.00
69	A5	825	C	C5-C6-N1	5.67	123.83	121.00
69	A5	1193	A	C6-C5-N7	5.67	136.26	132.30
69	A5	1355	C	N3-C2-O2	-5.67	117.93	121.90
69	A5	664	U	C4-C5-C6	-5.66	116.30	119.70
69	A5	1784	A	OP1-P-O3'	5.66	117.66	105.20
69	A5	21	U	N1-C2-O2	5.66	126.76	122.80
69	A5	630	U	N3-C2-O2	-5.66	118.24	122.20
69	A5	2162	C	N1-C2-N3	-5.66	115.24	119.20
69	A5	2131	C	C6-N1-C2	-5.66	118.03	120.30
69	A5	623	C	O5'-P-OP1	5.66	117.49	110.70
69	A5	1531	U	C2-N1-C1'	-5.66	110.91	117.70
69	A5	2516	U	O4'-C1'-N1	5.66	112.73	108.20
69	A5	2622	A	O5'-P-OP1	-5.66	100.61	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2777	A	O5'-P-OP1	-5.66	100.61	105.70
69	A5	3003	C	C5-C6-N1	5.66	123.83	121.00
69	A5	1366	G	C4-N9-C1'	-5.66	119.15	126.50
69	A5	3917	G	N3-C2-N2	5.66	123.86	119.90
69	A5	839	A	OP1-P-O3'	5.66	117.64	105.20
69	A5	3185	C	C5-C6-N1	5.66	123.83	121.00
69	A5	3277	A	C4-C5-C6	-5.65	114.17	117.00
69	A5	3630	C	N3-C4-C5	-5.65	119.64	121.90
69	A5	1065	A	C5-C6-N1	5.65	120.53	117.70
69	A5	1784	A	C4-C5-N7	5.65	113.53	110.70
69	A5	3341	C	C4-C5-C6	-5.65	114.58	117.40
69	A5	548	A	N3-C4-N9	-5.65	122.88	127.40
69	A5	884	U	C6-N1-C2	-5.65	117.61	121.00
70	B2	1960	A	C5-N7-C8	-5.65	101.08	103.90
69	A5	2234	C	N1-C2-O2	5.65	122.29	118.90
69	A5	2747	G	N1-C2-N2	-5.65	111.12	116.20
69	A5	545	U	C2-N1-C1'	5.65	124.48	117.70
69	A5	2657	A	N3-C4-C5	5.65	130.75	126.80
70	B2	1108	C	N3-C2-O2	-5.65	117.95	121.90
69	A5	1710	G	C6-C5-N7	-5.64	127.01	130.40
69	A5	1798	A	P-O3'-C3'	5.64	126.47	119.70
69	A5	3476	G	N9-C4-C5	-5.64	103.14	105.40
70	B2	1648	C	N3-C2-O2	-5.64	117.95	121.90
69	A5	1618	A	C5-C6-N1	5.64	120.52	117.70
69	A5	2567	U	N3-C2-O2	-5.64	118.25	122.20
69	A5	1683	U	N3-C2-O2	-5.64	118.25	122.20
69	A5	2516	U	N3-C2-O2	-5.64	118.25	122.20
70	B2	550	C	C6-N1-C1'	-5.64	114.03	120.80
38	A9	26	U	C6-N1-C2	-5.64	117.62	121.00
69	A5	1870	G	C8-N9-C4	-5.64	104.14	106.40
69	A5	520	G	C4-C5-N7	5.63	113.05	110.80
69	A5	1010	A	C2-N3-C4	5.63	113.42	110.60
69	A5	991	A	C5-C6-N1	5.63	120.52	117.70
69	A5	1366	G	O5'-P-OP1	-5.63	100.63	105.70
69	A5	1654	C	C5-C6-N1	5.63	123.82	121.00
69	A5	2584	G	N3-C4-C5	-5.63	125.78	128.60
69	A5	1690	U	C5-C6-N1	5.63	125.52	122.70
69	A5	2910	C	O5'-P-OP1	-5.63	100.63	105.70
69	A5	3294	A	C5-C6-N1	5.63	120.52	117.70
13	CT	144	LEU	C-N-CA	5.63	135.77	121.70
67	AQ	144	GLN	C-N-CA	5.63	135.77	121.70
69	A5	1265	U	C2-N1-C1'	5.63	124.45	117.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2469	U	C2-N1-C1'	5.63	124.45	117.70
69	A5	289	C	N3-C2-O2	-5.63	117.96	121.90
69	A5	1661	C	C6-N1-C2	-5.63	118.05	120.30
69	A5	1664	C	N1-C2-O2	5.63	122.28	118.90
69	A5	3549	C	C5-C6-N1	5.63	123.81	121.00
69	A5	68	G	C2-N3-C4	5.62	114.71	111.90
69	A5	854	U	N1-C2-O2	5.62	126.74	122.80
70	B2	631	C	C2-N1-C1'	5.62	124.99	118.80
69	A5	2195	A	N1-C6-N6	-5.62	115.22	118.60
69	A5	3251	C	C5-C4-N4	5.62	124.14	120.20
69	A5	3791	A	O5'-P-OP1	5.62	117.44	110.70
69	A5	1108	G	C4-C5-N7	-5.62	108.55	110.80
69	A5	3921	A	C2-N3-C4	5.62	113.41	110.60
69	A5	1112	G	N9-C4-C5	-5.62	103.15	105.40
69	A5	1644	C	C5-C6-N1	5.62	123.81	121.00
69	A5	1795	A	C5-C6-N6	-5.62	119.20	123.70
69	A5	1795	A	C8-N9-C1'	-5.62	117.59	127.70
69	A5	2777	A	N1-C2-N3	-5.62	126.49	129.30
45	AM	128	LEU	CA-CB-CG	5.62	128.22	115.30
69	A5	1074	U	N3-C4-C5	5.62	117.97	114.60
39	A7	60	C	N1-C2-O2	5.62	122.27	118.90
69	A5	45	G	OP2-P-O3'	5.62	117.56	105.20
69	A5	1294	U	C6-N1-C2	-5.62	117.63	121.00
5	Ca	43	ARG	NE-CZ-NH1	5.61	123.11	120.30
69	A5	754	A	N3-C4-N9	-5.61	122.91	127.40
69	A5	1093	C	C4-C5-C6	-5.61	114.59	117.40
69	A5	309	C	C5-C6-N1	5.61	123.81	121.00
70	B2	381	C	C6-N1-C2	-5.61	118.06	120.30
2	CL	4	GLY	N-CA-C	5.61	127.13	113.10
69	A5	1682	G	C8-N9-C4	5.61	108.64	106.40
69	A5	165	G	N3-C4-N9	5.61	129.37	126.00
69	A5	1347	A	N7-C8-N9	-5.61	111.00	113.80
69	A5	2156	U	N3-C4-O4	-5.61	115.47	119.40
69	A5	2243	G	C4-N9-C1'	5.61	133.79	126.50
70	B2	1068	U	C5-C4-O4	5.61	129.26	125.90
70	B2	1752	U	C2-N1-C1'	5.61	124.43	117.70
69	A5	688	U	N3-C2-O2	-5.60	118.28	122.20
69	A5	1131	C	O5'-P-OP1	-5.60	100.66	105.70
69	A5	1307	G	OP2-P-O3'	5.60	117.53	105.20
69	A5	103	A	C2-N3-C4	5.60	113.40	110.60
69	A5	2219	U	C6-N1-C2	-5.60	117.64	121.00
69	A5	566	A	N7-C8-N9	5.60	116.60	113.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2066	G	C4-C5-C6	5.60	122.16	118.80
69	A5	2218	G	C5-N7-C8	-5.60	101.50	104.30
69	A5	289	C	N1-C2-O2	5.60	122.26	118.90
69	A5	1113	A	N7-C8-N9	5.60	116.60	113.80
69	A5	1798	A	C2-N3-C4	5.60	113.40	110.60
69	A5	2499	U	C5-C6-N1	5.60	125.50	122.70
69	A5	701	U	C5-C6-N1	5.60	125.50	122.70
69	A5	2716	C	C6-N1-C2	-5.59	118.06	120.30
69	A5	442	A	C5-C6-N1	5.59	120.50	117.70
69	A5	553	A	N1-C6-N6	5.59	121.95	118.60
69	A5	1196	A	N7-C8-N9	5.59	116.60	113.80
69	A5	2912	U	N3-C2-O2	-5.59	118.29	122.20
69	A5	3350	U	C4-C5-C6	-5.59	116.34	119.70
69	A5	3571	C	C5-C6-N1	5.59	123.80	121.00
69	A5	3675	A	C8-N9-C1'	5.59	137.76	127.70
69	A5	540	G	C2-N3-C4	5.59	114.69	111.90
70	B2	1284	A	P-O3'-C3'	5.59	126.41	119.70
69	A5	316	U	N1-C2-O2	5.59	126.71	122.80
70	B2	344	C	N3-C2-O2	-5.59	117.99	121.90
69	A5	1785	G	C4-C5-C6	5.59	122.15	118.80
69	A5	2065	A	C4-C5-N7	5.59	113.49	110.70
69	A5	2727	U	O5'-P-OP1	5.59	117.41	110.70
40	A8	56	U	N3-C2-O2	-5.58	118.29	122.20
69	A5	3144	U	C5-C6-N1	5.58	125.49	122.70
1	CO	33	GLY	N-CA-C	5.58	127.06	113.10
38	A9	14	U	C6-N1-C2	-5.58	117.65	121.00
69	A5	1050	C	N3-C2-O2	-5.58	117.99	121.90
69	A5	1284	A	N3-C4-C5	5.58	130.71	126.80
69	A5	1724	A	O5'-P-OP2	-5.58	100.67	105.70
70	B2	1333	C	N1-C2-O2	5.58	122.25	118.90
21	CB	323	TYR	CB-CG-CD1	5.58	124.35	121.00
69	A5	662	A	C5-C6-N1	5.58	120.49	117.70
69	A5	1687	U	C5-C4-O4	5.58	129.25	125.90
69	A5	3593	A	N9-C4-C5	5.58	108.03	105.80
70	B2	1983	G	C8-N9-C4	5.58	108.63	106.40
69	A5	2090	U	C2-N1-C1'	5.58	124.39	117.70
69	A5	2688	U	N3-C2-O2	-5.58	118.30	122.20
69	A5	3132	C	C4-C5-C6	-5.58	114.61	117.40
69	A5	3256	U	N3-C2-O2	-5.58	118.29	122.20
69	A5	3595	U	C5-C6-N1	5.58	125.49	122.70
70	B2	137	C	N1-C2-O2	5.58	122.25	118.90
69	A5	3621	A	N9-C4-C5	-5.58	103.57	105.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1512	C	C6-N1-C2	-5.58	118.07	120.30
69	A5	3540	G	N1-C2-N3	5.58	127.25	123.90
69	A5	3936	A	N1-C6-N6	5.58	121.95	118.60
69	A5	541	A	N1-C6-N6	-5.57	115.26	118.60
69	A5	769	U	O5'-P-OP1	-5.57	100.69	105.70
69	A5	1609	U	C2-N1-C1'	5.57	124.39	117.70
69	A5	1800	U	C2-N1-C1'	5.57	124.39	117.70
70	B2	848	C	N1-C2-O2	5.57	122.24	118.90
29	CC	297	LYS	C-N-CA	5.57	135.63	121.70
69	A5	548	A	C4-C5-C6	-5.57	114.21	117.00
69	A5	2124	G	C4-N9-C1'	5.57	133.74	126.50
69	A5	816	A	C5-C6-N1	5.57	120.48	117.70
70	B2	49	C	C6-N1-C2	-5.57	118.07	120.30
69	A5	1536	U	N3-C2-O2	-5.57	118.30	122.20
69	A5	1758	U	C6-N1-C2	-5.57	117.66	121.00
69	A5	23	U	N3-C2-O2	-5.57	118.30	122.20
69	A5	322	G	C5-N7-C8	-5.57	101.52	104.30
69	A5	654	G	N7-C8-N9	5.57	115.88	113.10
69	A5	1052	U	N3-C2-O2	-5.57	118.30	122.20
69	A5	1108	G	N7-C8-N9	5.57	115.88	113.10
76	CU	278	LYS	C-N-CA	5.57	135.62	121.70
69	A5	1273	U	N3-C2-O2	-5.57	118.30	122.20
70	B2	1366	C	C6-N1-C2	-5.57	118.07	120.30
69	A5	777	C	C5-C6-N1	5.56	123.78	121.00
69	A5	1019	U	N1-C2-N3	5.56	118.24	114.90
69	A5	287	G	C8-N9-C4	5.56	108.62	106.40
69	A5	1595	G	N3-C2-N2	-5.56	116.01	119.90
69	A5	1688	A	OP1-P-O3'	5.56	117.44	105.20
69	A5	1713	U	C5-C4-O4	5.56	129.24	125.90
69	A5	1725	A	C4-C5-N7	5.56	113.48	110.70
69	A5	2031	C	C6-N1-C2	-5.56	118.08	120.30
69	A5	2733	G	C8-N9-C4	5.56	108.62	106.40
69	A5	802	G	O5'-P-OP2	-5.56	100.69	105.70
69	A5	926	U	N1-C2-O2	5.56	126.69	122.80
69	A5	105	A	O4'-C1'-N9	5.56	112.65	108.20
69	A5	1900	U	C6-N1-C2	-5.56	117.67	121.00
69	A5	3675	A	N7-C8-N9	-5.56	111.02	113.80
39	A7	69	C	N1-C2-O2	5.56	122.23	118.90
69	A5	1193	A	C5-C6-N6	5.56	128.15	123.70
69	A5	1794	G	C8-N9-C1'	-5.56	119.78	127.00
70	B2	1147	U	N1-C2-O2	5.56	126.69	122.80
69	A5	498	U	C5-C4-O4	-5.55	122.57	125.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	659	U	C4-C5-C6	5.55	123.03	119.70
69	A5	2774	G	N3-C2-N2	5.55	123.79	119.90
69	A5	383	A	C8-N9-C1'	-5.55	117.71	127.70
69	A5	804	C	N3-C2-O2	-5.55	118.02	121.90
69	A5	1387	G	C5-N7-C8	-5.55	101.53	104.30
69	A5	653	U	O5'-P-OP2	5.55	117.36	110.70
69	A5	1404	A	C4-N9-C1'	5.55	136.29	126.30
69	A5	1715	G	N7-C8-N9	5.55	115.88	113.10
69	A5	3644	C	N3-C2-O2	-5.55	118.02	121.90
69	A5	546	G	C2-N3-C4	-5.55	109.13	111.90
69	A5	663	U	N1-C2-N3	5.54	118.23	114.90
69	A5	761	C	C2-N3-C4	5.54	122.67	119.90
69	A5	1282	U	N1-C2-O2	5.54	126.68	122.80
69	A5	3591	A	C8-N9-C4	5.54	108.02	105.80
39	A7	26	C	C5-C6-N1	5.54	123.77	121.00
69	A5	615	C	P-O3'-C3'	5.54	126.35	119.70
69	A5	1144	C	N1-C2-O2	5.54	122.23	118.90
69	A5	1869	C	N3-C4-C5	5.54	124.12	121.90
69	A5	3309	A	C8-N9-C4	-5.54	103.58	105.80
69	A5	3551	U	C6-N1-C2	-5.54	117.67	121.00
26	Ci	71	LEU	CA-CB-CG	5.54	128.04	115.30
69	A5	1172	G	C4-C5-N7	5.54	113.02	110.80
69	A5	2487	C	C6-N1-C2	-5.54	118.08	120.30
69	A5	2764	A	C4-C5-N7	5.54	113.47	110.70
69	A5	3245	U	N1-C2-O2	5.54	126.68	122.80
69	A5	3257	U	C5-C6-N1	-5.54	119.93	122.70
69	A5	3331	A	N9-C4-C5	-5.54	103.58	105.80
69	A5	3543	A	C8-N9-C4	-5.54	103.58	105.80
70	B2	622	C	C5-C6-N1	5.54	123.77	121.00
69	A5	993	A	C6-N1-C2	5.54	121.92	118.60
69	A5	1004	C	N3-C4-N4	-5.54	114.12	118.00
69	A5	1273	U	O5'-P-OP2	-5.54	100.72	105.70
69	A5	1684	G	O5'-P-OP1	-5.54	100.72	105.70
69	A5	3751	C	N3-C2-O2	-5.54	118.02	121.90
69	A5	3399	C	O5'-P-OP1	-5.54	100.72	105.70
69	A5	811	G	C4-C5-C6	-5.54	115.48	118.80
69	A5	1874	G	O5'-P-OP1	-5.54	100.72	105.70
69	A5	2733	G	C5-N7-C8	-5.54	101.53	104.30
69	A5	209	U	N3-C2-O2	-5.53	118.33	122.20
69	A5	1328	U	O5'-P-OP2	5.53	117.34	110.70
69	A5	3920	C	C6-N1-C2	-5.53	118.09	120.30
69	A5	916	C	C6-N1-C2	-5.53	118.09	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2751	A	N1-C6-N6	-5.53	115.28	118.60
69	A5	3234	A	N9-C4-C5	-5.53	103.59	105.80
70	B2	1979	C	C6-N1-C2	-5.53	118.09	120.30
69	A5	1544	U	C5-C6-N1	5.53	125.46	122.70
69	A5	3170	U	N3-C4-O4	-5.53	115.53	119.40
69	A5	3542	C	OP1-P-OP2	-5.53	111.31	119.60
69	A5	659	U	N1-C2-O2	5.53	126.67	122.80
69	A5	1618	A	N3-C4-N9	5.53	131.82	127.40
69	A5	3477	A	N3-C4-N9	-5.53	122.98	127.40
24	Ce	7	TYR	CA-CB-CG	5.52	123.89	113.40
69	A5	1333	C	C6-N1-C2	-5.52	118.09	120.30
33	Co	47	GLY	C-N-CA	5.52	135.51	121.70
69	A5	237	G	C4-C5-N7	5.52	113.01	110.80
69	A5	382	G	N7-C8-N9	-5.52	110.34	113.10
69	A5	1141	G	C5-C6-N1	5.52	114.26	111.50
69	A5	3936	A	C6-C5-N7	-5.52	128.44	132.30
69	A5	1693	C	C6-N1-C2	-5.52	118.09	120.30
69	A5	3653	U	C5-C6-N1	5.52	125.46	122.70
69	A5	3947	C	N3-C2-O2	-5.52	118.03	121.90
69	A5	1127	C	N3-C2-O2	-5.52	118.04	121.90
69	A5	1145	C	OP1-P-O3'	5.52	117.34	105.20
69	A5	1421	G	N3-C4-N9	5.52	129.31	126.00
69	A5	3946	G	C4-C5-N7	-5.52	108.59	110.80
70	B2	1378	C	N1-C2-O2	5.52	122.21	118.90
69	A5	299	G	C4-C5-N7	-5.52	108.59	110.80
69	A5	457	A	C4-C5-N7	5.52	113.46	110.70
69	A5	1106	A	C4-C5-C6	-5.52	114.24	117.00
69	A5	1135	U	C2-N1-C1'	5.52	124.32	117.70
69	A5	3520	U	C5-C6-N1	-5.52	119.94	122.70
69	A5	476	U	C2-N1-C1'	5.52	124.32	117.70
69	A5	844	C	N3-C2-O2	-5.52	118.04	121.90
69	A5	3573	C	C6-N1-C2	-5.52	118.09	120.30
69	A5	3795	G	C8-N9-C1'	-5.52	119.83	127.00
69	A5	652	G	N7-C8-N9	-5.51	110.34	113.10
69	A5	828	G	N7-C8-N9	5.51	115.86	113.10
69	A5	2170	C	C5-C6-N1	5.51	123.76	121.00
69	A5	3597	C	C5-C6-N1	5.51	123.76	121.00
39	A7	98	G	C8-N9-C4	-5.51	104.19	106.40
69	A5	394	G	O5'-P-OP2	-5.51	100.74	105.70
69	A5	541	A	C4-C5-C6	-5.51	114.25	117.00
69	A5	654	G	N1-C6-O6	5.51	123.21	119.90
69	A5	1325	C	C2-N3-C4	-5.51	117.14	119.90

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2169	U	C5-C6-N1	5.51	125.45	122.70
69	A5	63	G	N1-C6-O6	-5.51	116.59	119.90
69	A5	173	A	N7-C8-N9	5.51	116.55	113.80
69	A5	3519	C	N1-C2-O2	5.51	122.21	118.90
70	B2	1020	U	N1-C2-O2	5.51	126.66	122.80
24	Ce	52	TYR	CA-CB-CG	-5.51	102.93	113.40
40	A8	40	A	N1-C2-N3	-5.51	126.55	129.30
69	A5	1396	A	C8-N9-C1'	-5.51	117.79	127.70
69	A5	1685	G	C5-C6-N1	5.51	114.25	111.50
69	A5	3620	G	C8-N9-C4	5.51	108.60	106.40
70	B2	1087	C	C6-N1-C1'	-5.51	114.19	120.80
67	AQ	34	LEU	CA-CB-CG	5.50	127.96	115.30
69	A5	14	C	N3-C2-O2	-5.50	118.05	121.90
69	A5	3402	C	N3-C4-N4	-5.50	114.15	118.00
40	A8	66	U	N3-C2-O2	-5.50	118.35	122.20
69	A5	3381	C	C6-N1-C2	-5.50	118.10	120.30
69	A5	3674	G	N9-C4-C5	-5.50	103.20	105.40
69	A5	3970	A	O5'-P-OP2	-5.50	100.75	105.70
70	B2	1273	U	N3-C2-O2	-5.50	118.35	122.20
69	A5	2684	C	C6-N1-C2	-5.50	118.10	120.30
69	A5	3309	A	C4-C5-N7	5.50	113.45	110.70
69	A5	228	C	N1-C2-O2	5.50	122.20	118.90
69	A5	3233	C	C6-N1-C2	-5.50	118.10	120.30
69	A5	3593	A	P-O3'-C3'	5.50	126.30	119.70
69	A5	773	G	N1-C6-O6	-5.50	116.60	119.90
69	A5	999	U	N3-C2-O2	-5.50	118.35	122.20
69	A5	3404	A	N9-C4-C5	-5.50	103.60	105.80
70	B2	1681	U	N1-C2-O2	5.50	126.65	122.80
69	A5	355	G	C4-C5-C6	-5.49	115.50	118.80
69	A5	362	A	N1-C6-N6	-5.49	115.30	118.60
69	A5	2135	C	N1-C2-O2	5.49	122.20	118.90
69	A5	3330	C	C6-N1-C2	-5.49	118.10	120.30
69	A5	3620	G	N9-C4-C5	-5.49	103.20	105.40
69	A5	2164	G	N3-C4-C5	5.49	131.34	128.60
69	A5	2608	G	N3-C2-N2	-5.49	116.06	119.90
40	A8	106	A	N1-C2-N3	-5.49	126.56	129.30
69	A5	881	G	N3-C4-C5	5.49	131.34	128.60
69	A5	3728	A	C5-C6-N6	5.49	128.09	123.70
69	A5	459	U	N1-C2-O2	5.49	126.64	122.80
69	A5	2233	C	N1-C2-O2	5.49	122.19	118.90
40	A8	44	C	C4-C5-C6	-5.49	114.66	117.40
69	A5	289	C	C2-N1-C1'	5.49	124.83	118.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	344	U	C5-C6-N1	5.49	125.44	122.70
69	A5	546	G	N7-C8-N9	5.49	115.84	113.10
69	A5	580	A	P-O3'-C3'	5.49	126.28	119.70
69	A5	2105	C	O4'-C1'-N1	5.49	112.59	108.20
69	A5	3282	C	P-O3'-C3'	5.49	126.28	119.70
69	A5	1752	G	C4-C5-N7	-5.48	108.61	110.80
69	A5	3774	U	C6-N1-C1'	-5.48	113.52	121.20
69	A5	1378	A	N9-C4-C5	-5.48	103.61	105.80
69	A5	1797	A	C5-N7-C8	-5.48	101.16	103.90
69	A5	3148	C	N1-C2-O2	5.48	122.19	118.90
69	A5	3475	U	N1-C2-O2	5.48	126.64	122.80
69	A5	3844	U	C5-C6-N1	-5.48	119.96	122.70
69	A5	1484	U	N1-C2-O2	5.48	126.64	122.80
69	A5	3145	U	C5-C6-N1	5.48	125.44	122.70
69	A5	3471	A	C6-N1-C2	5.48	121.89	118.60
69	A5	3712	G	N3-C4-C5	5.48	131.34	128.60
69	A5	1574	A	N3-C4-C5	-5.48	122.97	126.80
69	A5	237	G	O5'-P-OP2	-5.48	100.77	105.70
69	A5	800	C	C4-C5-C6	-5.47	114.66	117.40
69	A5	1793	C	N3-C2-O2	-5.47	118.07	121.90
69	A5	3235	A	N1-C6-N6	5.47	121.89	118.60
69	A5	67	A	N7-C8-N9	5.47	116.54	113.80
70	B2	335	U	C5-C6-N1	5.47	125.44	122.70
69	A5	3274	A	N1-C6-N6	-5.47	115.32	118.60
39	A7	96	U	O5'-P-OP1	-5.47	100.78	105.70
69	A5	300	A	N7-C8-N9	5.47	116.53	113.80
69	A5	1981	A	N3-C4-C5	5.47	130.63	126.80
69	A5	1998	U	C6-N1-C2	-5.47	117.72	121.00
69	A5	3149	U	N1-C2-N3	5.47	118.18	114.90
22	CF	237	PHE	CB-CG-CD1	5.47	124.63	120.80
40	A8	99	U	C6-N1-C1'	-5.47	113.55	121.20
69	A5	2626	C	N3-C2-O2	-5.46	118.08	121.90
69	A5	1020	A	OP2-P-O3'	5.46	117.22	105.20
69	A5	811	G	C6-C5-N7	5.46	133.68	130.40
69	A5	927	A	N3-C4-N9	5.46	131.77	127.40
69	A5	1018	C	C5-C6-N1	5.46	123.73	121.00
69	A5	2659	A	O4'-C1'-N9	5.46	112.57	108.20
69	A5	3411	C	N1-C2-O2	5.46	122.18	118.90
69	A5	3464	G	N9-C4-C5	5.46	107.58	105.40
69	A5	3676	C	N3-C4-C5	5.46	124.08	121.90
69	A5	3844	U	N1-C2-N3	5.46	118.18	114.90
69	A5	1145	C	N1-C2-O2	5.46	122.18	118.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	838	U	C5-C6-N1	5.46	125.43	122.70
69	A5	851	G	N3-C4-N9	5.46	129.28	126.00
69	A5	1664	C	C6-N1-C2	-5.46	118.12	120.30
70	B2	550	C	C5-C6-N1	5.46	123.73	121.00
70	B2	1582	C	C6-N1-C1'	-5.46	114.25	120.80
29	CC	123	ARG	NE-CZ-NH1	-5.46	117.57	120.30
69	A5	1759	C	C6-N1-C2	-5.46	118.12	120.30
70	B2	313	C	C6-N1-C1'	-5.46	114.25	120.80
69	A5	1387	G	N7-C8-N9	5.46	115.83	113.10
69	A5	3461	C	N1-C2-O2	5.46	122.17	118.90
69	A5	3523	U	C5-C6-N1	5.46	125.43	122.70
69	A5	1012	G	N1-C2-N2	-5.45	111.29	116.20
69	A5	3825	U	N3-C2-O2	-5.45	118.38	122.20
70	B2	70	C	N1-C2-O2	5.45	122.17	118.90
69	A5	1092	U	N1-C2-O2	5.45	126.62	122.80
70	B2	589	U	C2-N1-C1'	5.45	124.24	117.70
69	A5	289	C	C5-C6-N1	5.45	123.72	121.00
69	A5	1080	G	N1-C2-N2	-5.45	111.29	116.20
69	A5	1150	G	N3-C4-C5	-5.45	125.87	128.60
69	A5	3675	A	N1-C2-N3	-5.45	126.58	129.30
70	B2	1003	C	C5-C6-N1	5.45	123.72	121.00
69	A5	1324	C	OP1-P-OP2	-5.45	111.43	119.60
69	A5	1404	A	C2-N3-C4	5.45	113.32	110.60
69	A5	1761	C	N3-C2-O2	-5.45	118.09	121.90
70	B2	1979	C	N1-C2-O2	5.45	122.17	118.90
69	A5	855	A	C8-N9-C4	5.45	107.98	105.80
69	A5	1141	G	C2-N3-C4	5.45	114.62	111.90
69	A5	1626	A	C5-N7-C8	-5.45	101.18	103.90
69	A5	1689	G	C4-N9-C1'	5.45	133.58	126.50
69	A5	3588	G	C2-N3-C4	5.45	114.62	111.90
69	A5	3607	C	N3-C4-N4	5.45	121.81	118.00
69	A5	1013	G	C4-N9-C1'	5.44	133.57	126.50
69	A5	2092	U	O5'-P-OP2	-5.44	100.80	105.70
69	A5	2198	G	C8-N9-C4	5.44	108.58	106.40
69	A5	3218	C	C5-C6-N1	5.44	123.72	121.00
69	A5	3932	U	N3-C2-O2	-5.44	118.39	122.20
69	A5	241	C	N3-C2-O2	-5.44	118.09	121.90
69	A5	548	A	N3-C4-C5	5.44	130.61	126.80
69	A5	2774	G	N3-C4-C5	-5.44	125.88	128.60
70	B2	344	C	C5-C6-N1	5.44	123.72	121.00
69	A5	1753	G	N7-C8-N9	5.44	115.82	113.10
38	A9	27	U	N3-C2-O2	-5.44	118.39	122.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	670	G	C4-N9-C1'	-5.44	119.43	126.50
69	A5	802	G	C8-N9-C4	5.44	108.58	106.40
69	A5	1606	G	N3-C4-N9	5.44	129.26	126.00
69	A5	2562	U	C5-C6-N1	5.44	125.42	122.70
69	A5	821	U	C4-C5-C6	-5.44	116.44	119.70
69	A5	986	A	N1-C2-N3	-5.44	126.58	129.30
69	A5	2239	C	N3-C2-O2	-5.43	118.10	121.90
69	A5	3295	U	N1-C2-O2	5.43	126.60	122.80
69	A5	749	U	O4'-C1'-N1	5.43	112.55	108.20
69	A5	3553	C	N3-C2-O2	-5.43	118.10	121.90
69	A5	3932	U	C6-N1-C2	-5.43	117.74	121.00
69	A5	2095	U	C2-N1-C1'	5.43	124.22	117.70
34	CJ	96	GLU	CA-CB-CG	5.43	125.35	113.40
70	B2	1147	U	N3-C2-O2	-5.43	118.40	122.20
69	A5	428	C	N3-C4-C5	5.43	124.07	121.90
69	A5	798	C	N3-C4-N4	-5.43	114.20	118.00
38	A9	21	G	P-O3'-C3'	5.43	126.21	119.70
40	A8	34	C	C6-N1-C2	-5.43	118.13	120.30
69	A5	1116	G	OP1-P-O3'	5.43	117.14	105.20
69	A5	3353	C	N1-C2-O2	5.43	122.16	118.90
69	A5	3675	A	N3-C4-C5	5.43	130.60	126.80
69	A5	3791	A	C2-N3-C4	5.43	113.31	110.60
69	A5	926	U	N3-C2-O2	-5.42	118.40	122.20
69	A5	2742	G	O5'-P-OP1	-5.42	100.82	105.70
69	A5	3877	G	OP1-P-O3'	5.42	117.13	105.20
70	B2	1185	U	O5'-P-OP2	-5.42	100.82	105.70
70	B2	1728	G	C4-N9-C1'	5.42	133.55	126.50
69	A5	692	G	C2-N3-C4	5.42	114.61	111.90
69	A5	2711	C	C5-C6-N1	5.42	123.71	121.00
69	A5	543	A	C5-C6-N6	-5.42	119.36	123.70
69	A5	821	U	C5-C6-N1	5.42	125.41	122.70
69	A5	1689	G	N1-C2-N3	5.42	127.15	123.90
40	A8	49	C	N3-C2-O2	-5.42	118.11	121.90
69	A5	383	A	N9-C4-C5	-5.42	103.63	105.80
69	A5	789	G	N7-C8-N9	5.42	115.81	113.10
69	A5	1874	G	C4-N9-C1'	5.42	133.54	126.50
35	CH	43	LEU	CA-CB-CG	5.42	127.76	115.30
39	A7	14	C	N1-C2-O2	5.42	122.15	118.90
69	A5	278	U	N1-C2-O2	5.42	126.59	122.80
69	A5	1118	C	O5'-P-OP2	-5.42	100.82	105.70
69	A5	3665	U	N1-C2-O2	5.42	126.59	122.80
69	A5	3606	G	C4-N9-C1'	5.42	133.54	126.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	819	U	N3-C4-O4	5.41	123.19	119.40
69	A5	1314	U	N1-C2-O2	5.41	126.59	122.80
69	A5	2656	C	C5-C6-N1	5.41	123.71	121.00
69	A5	3591	A	C3'-C2'-C1'	-5.41	97.17	101.50
69	A5	782	G	O5'-P-OP1	-5.41	100.83	105.70
69	A5	1675	G	OP1-P-OP2	-5.41	111.48	119.60
69	A5	3235	A	N7-C8-N9	5.41	116.51	113.80
69	A5	296	C	N3-C2-O2	-5.41	118.11	121.90
69	A5	846	U	C5-C4-O4	5.41	129.15	125.90
69	A5	1661	C	N1-C2-O2	5.41	122.15	118.90
69	A5	1785	G	N3-C4-C5	-5.41	125.89	128.60
69	A5	3003	C	N1-C2-O2	5.41	122.15	118.90
69	A5	870	U	OP1-P-O3'	5.41	117.10	105.20
70	B2	1681	U	N3-C2-O2	-5.41	118.41	122.20
69	A5	1131	C	N1-C2-O2	5.41	122.14	118.90
39	A7	78	C	C2-N3-C4	5.41	122.60	119.90
69	A5	26	G	OP1-P-O3'	5.41	117.09	105.20
69	A5	93	G	N7-C8-N9	5.41	115.80	113.10
69	A5	1604	G	C8-N9-C4	-5.41	104.24	106.40
69	A5	1696	A	O5'-P-OP1	-5.41	100.83	105.70
69	A5	1770	C	N1-C2-O2	5.41	122.14	118.90
69	A5	2720	U	C5-C6-N1	5.41	125.40	122.70
70	B2	1108	C	N1-C2-O2	5.41	122.14	118.90
69	A5	1725	A	O5'-P-OP2	-5.40	100.84	105.70
69	A5	3588	G	C5-C6-N1	5.40	114.20	111.50
69	A5	360	A	OP1-P-O3'	5.40	117.08	105.20
69	A5	2002	C	N1-C2-O2	5.40	122.14	118.90
69	A5	2164	G	N3-C4-N9	-5.40	122.76	126.00
69	A5	3678	G	N1-C6-O6	-5.40	116.66	119.90
69	A5	1170	U	C2-N3-C4	5.40	130.24	127.00
69	A5	1787	C	C6-N1-C2	-5.40	118.14	120.30
69	A5	3409	G	N3-C4-C5	-5.40	125.90	128.60
69	A5	394	G	C6-C5-N7	-5.40	127.16	130.40
69	A5	1055	U	N3-C2-O2	-5.40	118.42	122.20
69	A5	1379	U	C6-N1-C2	-5.40	117.76	121.00
69	A5	1563	A	C5-C6-N6	-5.40	119.38	123.70
69	A5	2118	U	C5-C6-N1	5.40	125.40	122.70
69	A5	2767	U	N1-C2-O2	5.40	126.58	122.80
69	A5	2886	C	C6-N1-C2	-5.40	118.14	120.30
69	A5	3281	G	C4-N9-C1'	5.40	133.52	126.50
70	B2	137	C	N3-C2-O2	-5.40	118.12	121.90
69	A5	103	A	N1-C6-N6	-5.39	115.36	118.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	394	G	O4'-C1'-N9	5.39	112.52	108.20
69	A5	1115	A	N3-C4-N9	-5.39	123.08	127.40
69	A5	2185	U	C5-C6-N1	5.39	125.40	122.70
69	A5	2532	U	C5-C6-N1	5.39	125.40	122.70
69	A5	2705	U	O5'-P-OP2	-5.39	100.84	105.70
69	A5	3000	G	O4'-C1'-N9	5.39	112.52	108.20
69	A5	2493	C	C6-N1-C2	-5.39	118.14	120.30
69	A5	93	G	OP1-P-OP2	-5.39	111.51	119.60
69	A5	430	G	N7-C8-N9	5.39	115.80	113.10
69	A5	2067	C	N1-C2-O2	5.39	122.14	118.90
69	A5	3573	C	N1-C2-O2	5.39	122.14	118.90
70	B2	988	G	O4'-C1'-N9	5.39	112.51	108.20
70	B2	1954	C	C6-N1-C2	-5.39	118.14	120.30
39	A7	69	C	N3-C2-O2	-5.39	118.13	121.90
69	A5	873	U	P-O3'-C3'	5.39	126.17	119.70
69	A5	1197	A	P-O3'-C3'	5.39	126.17	119.70
69	A5	3409	G	N1-C6-O6	-5.39	116.67	119.90
69	A5	1570	U	N3-C2-O2	-5.39	118.43	122.20
69	A5	3307	A	N1-C2-N3	-5.39	126.61	129.30
69	A5	3474	G	OP1-P-OP2	-5.39	111.52	119.60
69	A5	296	C	C2'-C3'-O3'	5.39	122.32	113.70
69	A5	699	U	N3-C2-O2	-5.39	118.43	122.20
69	A5	1209	A	N1-C6-N6	-5.38	115.37	118.60
69	A5	1781	U	N3-C2-O2	-5.38	118.43	122.20
69	A5	3309	A	C4-N9-C1'	5.38	135.99	126.30
61	AJ	5	ARG	C-N-CA	5.38	135.16	121.70
39	A7	108	G	N3-C2-N2	-5.38	116.13	119.90
69	A5	2232	U	N3-C2-O2	-5.38	118.43	122.20
69	A5	2657	A	O5'-P-OP2	-5.38	100.86	105.70
69	A5	2770	C	C6-N1-C2	-5.38	118.15	120.30
69	A5	925	C	C5-C6-N1	5.38	123.69	121.00
69	A5	1617	U	OP2-P-O3'	5.38	117.04	105.20
69	A5	98	G	C4-C5-N7	5.38	112.95	110.80
69	A5	367	A	O4'-C1'-N9	-5.38	103.90	108.20
69	A5	668	A	C2-N3-C4	5.38	113.29	110.60
69	A5	1656	U	C2-N1-C1'	5.38	124.15	117.70
69	A5	1676	A	C6-C5-N7	5.38	136.06	132.30
69	A5	1909	U	OP1-P-O3'	5.38	117.03	105.20
69	A5	3583	C	C6-N1-C2	-5.38	118.15	120.30
69	A5	3952	C	O5'-P-OP1	-5.38	100.86	105.70
69	A5	1079	U	O4'-C1'-N1	5.38	112.50	108.20
69	A5	1712	C	C6-N1-C1'	5.38	127.25	120.80

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	CN	134	LEU	CB-CG-CD1	-5.37	101.86	111.00
69	A5	209	U	N1-C2-O2	5.37	126.56	122.80
69	A5	775	U	C5-C4-O4	5.37	129.12	125.90
69	A5	1026	G	C6-C5-N7	-5.37	127.18	130.40
69	A5	1626	A	N1-C2-N3	-5.37	126.61	129.30
69	A5	1643	G	N3-C4-N9	5.37	129.22	126.00
69	A5	1734	G	C8-N9-C4	-5.37	104.25	106.40
69	A5	2714	U	N1-C2-O2	5.37	126.56	122.80
69	A5	3365	G	C5-N7-C8	-5.37	101.61	104.30
70	B2	342	G	N3-C4-C5	-5.37	125.91	128.60
73	AK	54	GLY	C-N-CA	5.37	135.13	121.70
40	A8	40	A	O5'-P-OP1	-5.37	100.86	105.70
69	A5	1872	A	C8-N9-C4	-5.37	103.65	105.80
69	A5	3168	A	C4-C5-N7	5.37	113.39	110.70
69	A5	3757	U	OP1-P-OP2	-5.37	111.54	119.60
70	B2	631	C	C5-C6-N1	5.37	123.69	121.00
70	B2	1870	C	N3-C2-O2	-5.37	118.14	121.90
69	A5	373	A	N9-C4-C5	-5.37	103.65	105.80
69	A5	1050	C	C6-N1-C2	-5.37	118.15	120.30
69	A5	1749	A	C8-N9-C4	-5.37	103.65	105.80
69	A5	3309	A	C6-C5-N7	-5.37	128.54	132.30
69	A5	3487	A	OP1-P-OP2	-5.37	111.55	119.60
69	A5	1135	U	N3-C4-O4	5.37	123.16	119.40
69	A5	1739	U	C4-C5-C6	-5.37	116.48	119.70
2	CL	60	CYS	CA-CB-SG	5.37	123.66	114.00
69	A5	255	C	C5-C6-N1	5.37	123.68	121.00
69	A5	1511	C	C6-N1-C2	-5.37	118.15	120.30
69	A5	280	C	C6-N1-C2	-5.36	118.15	120.30
69	A5	820	A	C4-C5-C6	-5.36	114.32	117.00
69	A5	1155	U	N3-C4-C5	5.36	117.82	114.60
70	B2	1262	C	N1-C2-O2	5.36	122.12	118.90
70	B2	1934	U	N3-C2-O2	-5.36	118.44	122.20
69	A5	659	U	N1-C2-N3	5.36	118.12	114.90
69	A5	998	G	C4-C5-N7	5.36	112.94	110.80
69	A5	1383	A	C4-C5-N7	5.36	113.38	110.70
69	A5	1524	U	N1-C2-N3	5.36	118.12	114.90
69	A5	343	A	N1-C2-N3	-5.36	126.62	129.30
69	A5	1038	G	C5-C6-O6	-5.36	125.38	128.60
69	A5	1715	G	C2-N3-C4	-5.36	109.22	111.90
69	A5	3729	A	OP1-P-O3'	5.36	116.99	105.20
74	AF	217	LYS	C-N-CA	5.36	135.10	121.70
69	A5	3000	G	C4-N9-C1'	5.36	133.47	126.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1035	G	C4-C5-N7	5.36	112.94	110.80
69	A5	1284	A	C4-C5-C6	-5.36	114.32	117.00
69	A5	1866	G	C5-N7-C8	-5.36	101.62	104.30
69	A5	760	G	C5-N7-C8	-5.36	101.62	104.30
70	B2	38	C	N3-C2-O2	-5.36	118.15	121.90
70	B2	877	U	N3-C2-O2	-5.36	118.45	122.20
38	A9	12	C	C6-N1-C2	-5.35	118.16	120.30
69	A5	3281	G	N3-C2-N2	-5.35	116.15	119.90
69	A5	154	A	C5-N7-C8	-5.35	101.22	103.90
69	A5	789	G	C5-N7-C8	-5.35	101.62	104.30
69	A5	1423	C	C5-C6-N1	5.35	123.68	121.00
69	A5	1758	U	N3-C2-O2	-5.35	118.45	122.20
69	A5	1882	G	C4-C5-N7	5.35	112.94	110.80
69	A5	3365	G	C4-N9-C1'	5.35	133.46	126.50
39	A7	67	G	N3-C4-C5	5.35	131.28	128.60
69	A5	1124	G	N1-C6-O6	-5.35	116.69	119.90
69	A5	1265	U	C5-C6-N1	5.35	125.38	122.70
69	A5	113	A	OP1-P-O3'	5.35	116.96	105.20
69	A5	631	A	N3-C4-N9	5.35	131.68	127.40
69	A5	3731	U	N3-C2-O2	-5.35	118.46	122.20
70	B2	342	G	N3-C4-N9	5.35	129.21	126.00
69	A5	1945	U	N3-C2-O2	-5.35	118.46	122.20
69	A5	2682	C	N3-C4-C5	5.35	124.04	121.90
69	A5	3127	A	N7-C8-N9	5.35	116.47	113.80
69	A5	3457	C	C5-C6-N1	5.35	123.67	121.00
69	A5	992	U	N1-C2-O2	5.34	126.54	122.80
69	A5	1519	A	OP2-P-O3'	5.34	116.96	105.20
69	A5	1614	A	C8-N9-C4	-5.34	103.66	105.80
69	A5	1693	C	N1-C2-O2	5.34	122.11	118.90
69	A5	2194	G	N1-C6-O6	-5.34	116.69	119.90
69	A5	2714	U	C2-N1-C1'	5.34	124.11	117.70
69	A5	3665	U	C2-N1-C1'	5.34	124.11	117.70
39	A7	14	C	N3-C2-O2	-5.34	118.16	121.90
69	A5	2565	G	N3-C2-N2	5.34	123.64	119.90
69	A5	3951	U	C4-C5-C6	-5.34	116.49	119.70
38	A9	24	G	N9-C4-C5	5.34	107.54	105.40
69	A5	47	A	OP1-P-O3'	5.34	116.95	105.20
69	A5	1694	A	C8-N9-C4	5.34	107.94	105.80
69	A5	3795	G	C8-N9-C4	-5.34	104.26	106.40
45	AM	39	VAL	C-N-CA	5.34	135.05	121.70
69	A5	2570	C	C6-N1-C2	-5.34	118.16	120.30
69	A5	3464	G	N7-C8-N9	5.34	115.77	113.10

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1393	A	C4-C5-C6	-5.34	114.33	117.00
38	A9	2	G	O4'-C1'-N9	5.34	112.47	108.20
41	Ag	271	LEU	CB-CG-CD2	5.34	120.07	111.00
69	A5	1080	G	C5-C6-N1	5.34	114.17	111.50
69	A5	3470	G	N1-C6-O6	-5.34	116.70	119.90
69	A5	1409	G	C4-C5-N7	5.33	112.93	110.80
69	A5	2912	U	N1-C2-O2	5.33	126.53	122.80
69	A5	3281	G	C4-C5-N7	-5.33	108.67	110.80
70	B2	1650	G	C6-C5-N7	-5.33	127.20	130.40
69	A5	2127	C	C2-N1-C1'	5.33	124.67	118.80
70	B2	1844	C	C5-C6-N1	5.33	123.67	121.00
40	A8	5	C	C5-C6-N1	5.33	123.67	121.00
69	A5	1005	G	N1-C6-O6	-5.33	116.70	119.90
69	A5	2148	C	C5-C6-N1	5.33	123.67	121.00
69	A5	3641	U	N3-C2-O2	-5.33	118.47	122.20
31	Cn	13	LEU	CB-CG-CD1	-5.33	101.94	111.00
39	A7	57	C	C6-N1-C2	-5.33	118.17	120.30
39	A7	98	G	N7-C8-N9	5.33	115.76	113.10
69	A5	1795	A	N1-C2-N3	-5.33	126.64	129.30
69	A5	1966	A	N7-C8-N9	5.33	116.46	113.80
69	A5	1105	U	N1-C2-O2	5.33	126.53	122.80
69	A5	1165	A	O4'-C1'-N9	5.33	112.46	108.20
69	A5	2727	U	N3-C2-O2	-5.33	118.47	122.20
69	A5	3917	G	N1-C2-N2	-5.33	111.41	116.20
69	A5	2254	U	N1-C2-N3	5.32	118.09	114.90
70	B2	448	C	N1-C2-O2	5.32	122.09	118.90
69	A5	1310	A	P-O3'-C3'	5.32	126.09	119.70
69	A5	1325	C	O4'-C1'-N1	5.32	112.46	108.20
69	A5	1515	U	N3-C2-O2	-5.32	118.48	122.20
69	A5	2066	G	C6-C5-N7	-5.32	127.21	130.40
69	A5	2490	G	N3-C4-C5	5.32	131.26	128.60
69	A5	2657	A	O4'-C1'-N9	-5.32	103.94	108.20
69	A5	3673	G	O5'-P-OP1	-5.32	100.91	105.70
69	A5	285	G	C4-C5-N7	5.32	112.93	110.80
69	A5	655	C	N1-C2-O2	5.32	122.09	118.90
69	A5	1318	A	N3-C4-C5	5.32	130.52	126.80
69	A5	1370	C	C2-N3-C4	5.32	122.56	119.90
69	A5	1566	U	C2-N1-C1'	5.32	124.08	117.70
69	A5	375	C	C5-C6-N1	5.32	123.66	121.00
69	A5	1269	U	N1-C2-O2	5.32	126.52	122.80
69	A5	1614	A	C4-C5-N7	5.32	113.36	110.70
69	A5	2188	C	N3-C2-O2	-5.32	118.18	121.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	2608	G	N3-C4-N9	-5.32	122.81	126.00
69	A5	3522	A	O5'-P-OP2	5.32	117.08	110.70
70	B2	1111	U	C2-N1-C1'	5.32	124.08	117.70
69	A5	1550	U	C6-N1-C2	-5.31	117.81	121.00
38	A9	24	G	C8-N9-C1'	5.31	133.91	127.00
69	A5	1136	A	N1-C2-N3	-5.31	126.64	129.30
69	A5	2782	A	O4'-C1'-N9	5.31	112.45	108.20
69	A5	3715	U	N3-C2-O2	-5.31	118.48	122.20
69	A5	1143	U	N1-C2-N3	5.31	118.09	114.90
69	A5	2998	U	N1-C2-O2	5.31	126.52	122.80
40	A8	35	G	C5-C6-O6	5.31	131.78	128.60
69	A5	354	A	C8-N9-C4	5.31	107.92	105.80
69	A5	824	G	OP1-P-OP2	-5.31	111.64	119.60
69	A5	1264	U	C2-N1-C1'	5.31	124.07	117.70
69	A5	1383	A	C5-N7-C8	-5.31	101.25	103.90
69	A5	1865	U	C6-N1-C1'	-5.31	113.77	121.20
69	A5	229	C	N1-C2-O2	5.31	122.08	118.90
69	A5	1516	A	C8-N9-C4	5.31	107.92	105.80
69	A5	1568	A	C2-N3-C4	5.31	113.25	110.60
69	A5	2676	U	C5-C6-N1	5.31	125.35	122.70
69	A5	2798	C	N3-C2-O2	-5.31	118.19	121.90
69	A5	2043	G	O4'-C1'-N9	5.31	112.44	108.20
69	A5	438	G	N1-C2-N2	-5.30	111.43	116.20
69	A5	726	U	N3-C2-O2	-5.30	118.49	122.20
69	A5	3807	G	N9-C4-C5	-5.30	103.28	105.40
69	A5	476	U	C6-N1-C2	-5.30	117.82	121.00
69	A5	228	C	C6-N1-C2	-5.30	118.18	120.30
69	A5	1570	U	C2-N1-C1'	5.30	124.06	117.70
69	A5	3186	C	C5-C6-N1	5.30	123.65	121.00
69	A5	3289	U	C5-C6-N1	5.30	125.35	122.70
69	A5	3410	G	C4-C5-N7	5.30	112.92	110.80
69	A5	2006	U	N3-C2-O2	-5.30	118.49	122.20
69	A5	2542	C	C6-N1-C2	-5.30	118.18	120.30
69	A5	3841	C	N3-C2-O2	-5.30	118.19	121.90
69	A5	3911	G	N3-C4-C5	-5.30	125.95	128.60
69	A5	1117	A	C6-N1-C2	5.30	121.78	118.60
69	A5	1498	C	C2-N1-C1'	5.29	124.62	118.80
69	A5	86	C	C6-N1-C2	-5.29	118.18	120.30
69	A5	238	G	N7-C8-N9	5.29	115.75	113.10
69	A5	760	G	C2-N3-C4	-5.29	109.25	111.90
69	A5	1139	U	N3-C2-O2	-5.29	118.50	122.20
69	A5	1785	G	C4-N9-C1'	5.29	133.38	126.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1055	U	N1-C2-O2	5.29	126.50	122.80
69	A5	2554	U	C2-N1-C1'	5.29	124.05	117.70
69	A5	3283	U	C4-C5-C6	5.29	122.88	119.70
69	A5	3936	A	C2-N3-C4	-5.29	107.95	110.60
69	A5	746	G	C8-N9-C1'	-5.29	120.12	127.00
69	A5	810	A	O5'-P-OP1	5.29	117.05	110.70
69	A5	1166	U	C5-C4-O4	-5.29	122.73	125.90
69	A5	1588	A	N7-C8-N9	5.29	116.44	113.80
69	A5	2213	G	O5'-P-OP1	-5.29	100.94	105.70
69	A5	3701	U	C5-C6-N1	5.29	125.34	122.70
69	A5	3918	A	C6-C5-N7	-5.29	128.60	132.30
69	A5	188	G	C4-N9-C1'	5.29	133.37	126.50
69	A5	1355	C	N3-C4-N4	-5.29	114.30	118.00
69	A5	3441	C	N1-C2-O2	5.29	122.07	118.90
22	CF	219	THR	N-CA-C	-5.28	96.73	111.00
69	A5	2054	U	C5-C6-N1	5.28	125.34	122.70
70	B2	1064	A	N1-C6-N6	-5.28	115.43	118.60
69	A5	877	A	C5-C6-N1	5.28	120.34	117.70
69	A5	3969	G	N9-C4-C5	-5.28	103.29	105.40
69	A5	335	A	O5'-P-OP2	-5.28	100.95	105.70
69	A5	866	C	C2-N3-C4	5.28	122.54	119.90
69	A5	1220	U	C5-C6-N1	5.28	125.34	122.70
69	A5	1297	G	C6-C5-N7	-5.28	127.23	130.40
69	A5	1676	A	OP2-P-O3'	-5.28	93.59	105.20
69	A5	1862	U	P-O3'-C3'	5.28	126.03	119.70
70	B2	1940	G	N3-C2-N2	5.28	123.59	119.90
69	A5	93	G	N1-C2-N2	5.28	120.95	116.20
69	A5	3297	C	N3-C2-O2	-5.28	118.21	121.90
69	A5	3330	C	OP1-P-O3'	5.28	116.81	105.20
69	A5	3738	U	C6-N1-C1'	-5.28	113.81	121.20
70	B2	1748	A	C4-N9-C1'	5.28	135.79	126.30
69	A5	679	G	C4-N9-C1'	5.27	133.35	126.50
69	A5	1102	G	N7-C8-N9	5.27	115.74	113.10
69	A5	3514	C	C4-C5-C6	5.27	120.04	117.40
69	A5	3438	C	C6-N1-C2	-5.27	118.19	120.30
11	CA	213	GLY	N-CA-C	5.27	126.27	113.10
54	AY	75	LEU	CA-CB-CG	5.27	127.42	115.30
69	A5	1014	U	N1-C2-N3	5.27	118.06	114.90
69	A5	831	A	C6-C5-N7	5.27	135.99	132.30
69	A5	1023	C	C5-C6-N1	5.27	123.63	121.00
70	B2	399	C	C5-C6-N1	5.27	123.63	121.00
69	A5	867	U	C6-N1-C2	-5.26	117.84	121.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1220	U	C2-N1-C1'	5.26	124.02	117.70
69	A5	2692	U	O4'-C1'-N1	5.26	112.41	108.20
69	A5	2809	C	C6-N1-C2	-5.26	118.19	120.30
69	A5	3138	G	O5'-P-OP2	-5.26	100.96	105.70
69	A5	1270	G	N3-C4-N9	5.26	129.16	126.00
69	A5	1759	C	OP1-P-O3'	5.26	116.78	105.20
69	A5	555	U	C5-C4-O4	5.26	129.06	125.90
69	A5	801	G	O5'-P-OP1	-5.26	100.96	105.70
69	A5	1724	A	C8-N9-C1'	-5.26	118.23	127.70
69	A5	2775	A	O5'-P-OP2	-5.26	100.96	105.70
69	A5	3296	C	N3-C2-O2	-5.26	118.22	121.90
70	B2	115	U	N1-C2-O2	5.26	126.48	122.80
70	B2	416	C	N3-C2-O2	-5.26	118.22	121.90
39	A7	26	C	N1-C2-O2	5.26	122.06	118.90
69	A5	3573	C	N3-C2-O2	-5.26	118.22	121.90
69	A5	1208	U	N1-C2-O2	5.26	126.48	122.80
18	Cr	94	LEU	CA-CB-CG	5.26	127.39	115.30
69	A5	3152	G	C8-N9-C4	-5.26	104.30	106.40
69	A5	476	U	C5-C6-N1	5.25	125.33	122.70
69	A5	2165	C	C2-N3-C4	-5.25	117.27	119.90
69	A5	3471	A	C4-C5-C6	-5.25	114.37	117.00
70	B2	1934	U	N1-C2-O2	5.25	126.48	122.80
39	A7	118	C	N1-C2-O2	5.25	122.05	118.90
69	A5	1262	C	N1-C2-O2	5.25	122.05	118.90
69	A5	3477	A	N9-C4-C5	5.25	107.90	105.80
69	A5	3928	A	C2-N3-C4	5.25	113.22	110.60
40	A8	40	A	C5-N7-C8	-5.25	101.28	103.90
69	A5	846	U	C4-C5-C6	-5.25	116.55	119.70
69	A5	1891	U	N1-C2-N3	5.25	118.05	114.90
69	A5	3168	A	C5-N7-C8	-5.25	101.28	103.90
69	A5	2222	G	C4-C5-N7	5.25	112.90	110.80
69	A5	127	U	C5-C6-N1	5.25	125.32	122.70
69	A5	1384	C	C5-C6-N1	5.25	123.62	121.00
69	A5	2246	A	N7-C8-N9	5.25	116.42	113.80
69	A5	2492	A	N3-C4-C5	-5.25	123.13	126.80
69	A5	3292	C	N3-C4-N4	-5.25	114.33	118.00
70	B2	1683	U	C2-N1-C1'	5.25	124.00	117.70
70	B2	1968	C	C5-C6-N1	5.25	123.62	121.00
12	CS	173	ARG	C-N-CA	5.24	134.81	121.70
69	A5	1761	C	C6-N1-C2	-5.24	118.20	120.30
69	A5	2017	A	C5-N7-C8	-5.24	101.28	103.90
69	A5	3511	U	N3-C2-O2	-5.24	118.53	122.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	AE	180	LEU	CA-CB-CG	5.24	127.36	115.30
69	A5	457	A	C5-N7-C8	-5.24	101.28	103.90
69	A5	978	G	C2-N3-C4	5.24	114.52	111.90
69	A5	1013	G	C5-C6-O6	5.24	131.75	128.60
69	A5	1255	U	N3-C2-O2	-5.24	118.53	122.20
69	A5	1393	A	N3-C4-C5	5.24	130.47	126.80
69	A5	1981	A	C4-C5-N7	5.24	113.32	110.70
69	A5	2162	C	OP1-P-OP2	-5.24	111.74	119.60
69	A5	839	A	N9-C1'-C2'	5.24	120.81	114.00
69	A5	1165	A	C6-C5-N7	5.24	135.97	132.30
70	B2	632	G	N1-C6-O6	5.24	123.04	119.90
69	A5	917	G	C5-C6-O6	5.24	131.74	128.60
69	A5	1109	G	C4-C5-N7	5.24	112.89	110.80
69	A5	2129	C	OP2-P-O3'	5.24	116.72	105.20
69	A5	3520	U	O5'-P-OP1	-5.24	100.99	105.70
70	B2	1832	C	C5-C6-N1	5.23	123.62	121.00
70	B2	1979	C	N3-C2-O2	-5.23	118.24	121.90
69	A5	1083	A	OP2-P-O3'	5.23	116.71	105.20
69	A5	1170	U	N1-C2-N3	-5.23	111.76	114.90
69	A5	1362	G	O5'-P-OP1	-5.23	100.99	105.70
69	A5	1872	A	C4-N9-C1'	5.23	135.72	126.30
69	A5	3727	A	O4'-C1'-N9	5.23	112.39	108.20
70	B2	878	C	C5-C6-N1	5.23	123.62	121.00
69	A5	394	G	N9-C4-C5	-5.23	103.31	105.40
69	A5	1698	A	O4'-C1'-N9	-5.23	104.02	108.20
21	CB	261	ARG	NE-CZ-NH1	5.23	122.92	120.30
69	A5	1780	U	C5-C4-O4	-5.23	122.76	125.90
69	A5	2755	G	N3-C4-N9	5.23	129.14	126.00
69	A5	520	G	N3-C4-N9	5.23	129.14	126.00
69	A5	791	C	O5'-P-OP2	-5.23	101.00	105.70
69	A5	1872	A	C6-C5-N7	-5.23	128.64	132.30
69	A5	3298	U	N1-C2-O2	5.23	126.46	122.80
69	A5	2800	C	C2-N1-C1'	5.23	124.55	118.80
69	A5	3267	C	N1-C2-O2	5.23	122.04	118.90
69	A5	101	C	N1-C2-O2	5.22	122.03	118.90
69	A5	2796	G	C8-N9-C4	5.22	108.49	106.40
40	A8	45	G	N3-C2-N2	-5.22	116.24	119.90
69	A5	1013	G	N1-C2-N3	5.22	127.03	123.90
69	A5	1126	A	C5-C6-N1	5.22	120.31	117.70
69	A5	1177	U	C6-N1-C2	-5.22	117.87	121.00
69	A5	1204	C	C6-N1-C2	-5.22	118.21	120.30
69	A5	1792	G	OP2-P-O3'	5.22	116.69	105.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3117	A	O4'-C1'-N9	5.22	112.38	108.20
81	AS	91	ILE	C-N-CA	5.22	134.76	121.70
69	A5	3317	U	OP1-P-O3'	5.22	116.69	105.20
69	A5	3624	C	C6-N1-C2	-5.22	118.21	120.30
70	B2	1187	U	C6-N1-C2	-5.22	117.87	121.00
69	A5	163	A	C5-C6-N1	5.22	120.31	117.70
69	A5	348	A	C4-C5-C6	-5.22	114.39	117.00
69	A5	812	U	N3-C2-O2	-5.22	118.55	122.20
69	A5	1985	C	N3-C2-O2	-5.22	118.25	121.90
21	CB	40	PRO	N-CA-C	5.22	125.67	112.10
69	A5	1193	A	C4-C5-C6	-5.22	114.39	117.00
69	A5	1903	U	C5-C6-N1	5.22	125.31	122.70
69	A5	2481	U	N3-C2-O2	-5.22	118.55	122.20
39	A7	92	C	O5'-P-OP1	-5.22	101.01	105.70
69	A5	1127	C	N3-C4-C5	5.22	123.99	121.90
69	A5	1129	A	N1-C6-N6	5.22	121.73	118.60
69	A5	1389	C	C5-C4-N4	5.22	123.85	120.20
70	B2	1087	C	O4'-C1'-N1	5.22	112.37	108.20
69	A5	725	U	C5-C6-N1	5.21	125.31	122.70
69	A5	856	A	C8-N9-C4	5.21	107.89	105.80
69	A5	1687	U	C5-C6-N1	-5.21	120.09	122.70
69	A5	1710	G	N9-C4-C5	-5.21	103.31	105.40
69	A5	2200	A	C5-N7-C8	-5.21	101.29	103.90
69	A5	2510	A	C5-N7-C8	-5.21	101.29	103.90
70	B2	1949	A	OP2-P-O3'	5.21	116.67	105.20
67	AQ	112	ASP	CB-CG-OD1	5.21	122.99	118.30
69	A5	522	G	N3-C4-C5	-5.21	126.00	128.60
69	A5	1712	C	O5'-P-OP1	-5.21	101.01	105.70
69	A5	2059	U	N3-C2-O2	-5.21	118.55	122.20
69	A5	2171	U	C4-C5-C6	-5.21	116.57	119.70
69	A5	3620	G	C4-C5-N7	5.21	112.88	110.80
69	A5	3703	C	C6-N1-C2	-5.21	118.22	120.30
70	B2	1328	G	N3-C4-N9	5.21	129.13	126.00
70	B2	1929	U	N3-C2-O2	-5.21	118.55	122.20
39	A7	112	U	N1-C2-O2	5.21	126.44	122.80
69	A5	72	C	C5-C6-N1	5.21	123.61	121.00
69	A5	1951	C	N3-C2-O2	-5.21	118.25	121.90
69	A5	1001	A	N1-C6-N6	-5.21	115.48	118.60
69	A5	1721	C	C5-C6-N1	5.21	123.60	121.00
69	A5	2774	G	O4'-C1'-N9	5.21	112.36	108.20
69	A5	11	C	C2-N1-C1'	5.20	124.52	118.80
69	A5	1262	C	C6-N1-C2	-5.20	118.22	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1080	G	N9-C4-C5	-5.20	103.32	105.40
69	A5	1202	A	N1-C6-N6	-5.20	115.48	118.60
69	A5	1421	G	C8-N9-C1'	-5.20	120.24	127.00
69	A5	1563	A	OP2-P-O3'	5.20	116.64	105.20
69	A5	3271	G	C4-C5-N7	5.20	112.88	110.80
69	A5	303	G	N3-C4-C5	-5.20	126.00	128.60
69	A5	1112	G	N1-C2-N2	-5.20	111.52	116.20
70	B2	1052	U	C2-N1-C1'	5.20	123.93	117.70
69	A5	1969	A	N7-C8-N9	5.19	116.40	113.80
69	A5	3898	C	C5-C6-N1	5.19	123.60	121.00
69	A5	1321	G	N3-C4-C5	-5.19	126.00	128.60
69	A5	1799	U	C5'-C4'-O4'	5.19	115.33	109.10
69	A5	2812	U	C6-N1-C1'	-5.19	113.93	121.20
69	A5	1567	G	N3-C4-N9	5.19	129.11	126.00
69	A5	3126	C	C6-N1-C2	-5.19	118.22	120.30
69	A5	3730	G	C6-C5-N7	-5.19	127.28	130.40
69	A5	244	G	C2-N3-C4	5.19	114.49	111.90
69	A5	348	A	N1-C2-N3	-5.19	126.70	129.30
69	A5	1327	G	C5-C6-N1	5.19	114.09	111.50
39	A7	87	G	C5-C6-O6	5.19	131.71	128.60
69	A5	831	A	C4-C5-N7	-5.19	108.11	110.70
69	A5	1951	C	C5-C6-N1	5.19	123.59	121.00
22	CF	182	LEU	CA-CB-CG	5.19	127.23	115.30
40	A8	49	C	C5-C6-N1	5.19	123.59	121.00
69	A5	883	U	C2-N1-C1'	5.19	123.92	117.70
69	A5	1017	A	N9-C1'-C2'	5.19	120.74	114.00
69	A5	1548	C	OP2-P-O3'	5.19	116.61	105.20
69	A5	3275	G	N3-C4-N9	5.19	129.11	126.00
69	A5	241	C	C2-N1-C1'	5.18	124.50	118.80
69	A5	1063	C	N1-C2-O2	5.18	122.01	118.90
69	A5	3153	G	N3-C4-C5	-5.18	126.01	128.60
69	A5	3579	C	C6-N1-C2	-5.18	118.23	120.30
69	A5	3661	C	C2-N1-C1'	5.18	124.50	118.80
29	CC	205	ILE	CG1-CB-CG2	-5.18	100.00	111.40
69	A5	925	C	C6-N1-C2	-5.18	118.23	120.30
69	A5	2780	A	C6-N1-C2	5.18	121.71	118.60
69	A5	2796	G	C4-N9-C1'	5.18	133.24	126.50
69	A5	3891	U	N1-C1'-C2'	5.18	120.74	114.00
69	A5	746	G	N7-C8-N9	5.18	115.69	113.10
70	B2	253	A	C2-N3-C4	5.18	113.19	110.60
69	A5	432	U	N1-C2-O2	5.18	126.43	122.80
69	A5	1555	G	C5-C6-N1	5.18	114.09	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	3409	G	N3-C4-N9	5.18	129.11	126.00
40	A8	29	U	N1-C2-O2	5.18	126.42	122.80
69	A5	2490	G	C6-N1-C2	5.18	128.21	125.10
40	A8	36	A	C8-N9-C4	-5.17	103.73	105.80
69	A5	439	U	N3-C2-O2	-5.17	118.58	122.20
69	A5	794	G	N3-C4-N9	5.17	129.10	126.00
69	A5	826	A	N9-C4-C5	5.17	107.87	105.80
69	A5	832	U	C6-N1-C2	5.17	124.11	121.00
69	A5	1109	G	N9-C4-C5	-5.17	103.33	105.40
69	A5	3141	A	C8-N9-C4	-5.17	103.73	105.80
69	A5	807	A	C6-N1-C2	5.17	121.70	118.60
69	A5	2736	A	N1-C2-N3	-5.17	126.71	129.30
21	CB	130	PHE	CB-CG-CD2	-5.17	117.18	120.80
69	A5	1050	C	C2-N1-C1'	5.17	124.49	118.80
69	A5	2241	U	O4'-C1'-N1	-5.17	104.06	108.20
69	A5	3304	U	N1-C2-O2	5.17	126.42	122.80
69	A5	298	U	C6-N1-C2	-5.17	117.90	121.00
28	C1	2	ALA	C-N-CA	5.17	134.62	121.70
40	A8	49	C	C6-N1-C2	-5.17	118.23	120.30
69	A5	1193	A	N9-C4-C5	5.17	107.87	105.80
69	A5	2147	C	C5-C6-N1	5.17	123.58	121.00
69	A5	2184	G	O5'-P-OP2	5.17	116.90	110.70
69	A5	2756	C	C2-N3-C4	5.17	122.48	119.90
69	A5	126	G	C4-N9-C1'	5.17	133.22	126.50
69	A5	439	U	O4'-C1'-N1	5.16	112.33	108.20
69	A5	3167	A	N1-C6-N6	-5.16	115.50	118.60
69	A5	3473	C	O5'-C5'-C4'	5.16	121.51	111.70
69	A5	3738	U	C5-C6-N1	5.16	125.28	122.70
69	A5	246	C	N3-C2-O2	-5.16	118.29	121.90
69	A5	659	U	C2-N1-C1'	5.16	123.89	117.70
69	A5	3969	G	P-O3'-C3'	5.16	125.89	119.70
70	B2	965	G	O5'-P-OP1	-5.16	101.06	105.70
69	A5	982	C	OP2-P-O3'	5.16	116.55	105.20
69	A5	1317	A	N7-C8-N9	5.16	116.38	113.80
69	A5	2542	C	N3-C2-O2	-5.16	118.29	121.90
69	A5	3456	U	O4'-C1'-N1	5.16	112.33	108.20
69	A5	3613	G	O4'-C1'-N9	5.16	112.33	108.20
5	Ca	118	LEU	CA-CB-CG	5.16	127.16	115.30
69	A5	577	A	C8-N9-C4	-5.16	103.74	105.80
69	A5	1353	G	OP1-P-OP2	-5.16	111.86	119.60
69	A5	2560	A	N1-C6-N6	-5.16	115.51	118.60
40	A8	91	C	C5-C6-N1	5.16	123.58	121.00

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	264	U	N1-C2-O2	5.16	126.41	122.80
69	A5	1134	G	N3-C4-C5	-5.16	126.02	128.60
69	A5	2672	U	C6-N1-C2	-5.16	117.91	121.00
69	A5	1722	U	OP2-P-O3'	5.15	116.54	105.20
69	A5	3763	U	N1-C2-O2	-5.15	119.19	122.80
69	A5	56	A	OP1-P-O3'	5.15	116.53	105.20
69	A5	1339	U	C4-C5-C6	-5.15	116.61	119.70
69	A5	2154	A	C5-N7-C8	-5.15	101.32	103.90
69	A5	3484	U	N3-C2-O2	-5.15	118.59	122.20
69	A5	3666	C	C6-N1-C2	-5.15	118.24	120.30
69	A5	3967	U	N3-C2-O2	-5.15	118.59	122.20
70	B2	871	G	C4-N9-C1'	5.15	133.20	126.50
70	B2	1400	A	P-O3'-C3'	5.15	125.88	119.70
69	A5	316	U	C2-N1-C1'	5.15	123.88	117.70
69	A5	3674	G	C4-C5-N7	5.15	112.86	110.80
70	B2	998	U	N3-C2-O2	-5.15	118.59	122.20
69	A5	1791	A	N7-C8-N9	5.15	116.37	113.80
69	A5	927	A	N3-C4-C5	-5.15	123.20	126.80
69	A5	3952	C	N1-C2-O2	5.15	121.99	118.90
25	Cf	46	ARG	N-CA-C	5.15	124.89	111.00
69	A5	1865	U	C2-N3-C4	5.15	130.09	127.00
69	A5	839	A	N3-C4-C5	5.14	130.40	126.80
70	B2	849	U	N3-C2-O2	-5.14	118.60	122.20
70	B2	1853	U	N1-C2-O2	5.14	126.40	122.80
69	A5	453	C	C6-N1-C2	-5.14	118.24	120.30
69	A5	2170	C	C2-N1-C1'	5.14	124.46	118.80
69	A5	2488	U	C6-N1-C2	-5.14	117.91	121.00
69	A5	2736	A	C5-N7-C8	-5.14	101.33	103.90
69	A5	2798	C	N1-C2-O2	5.14	121.98	118.90
69	A5	3185	C	C6-N1-C2	-5.14	118.24	120.30
69	A5	3236	A	C2-N3-C4	-5.14	108.03	110.60
69	A5	3362	G	N3-C4-C5	-5.14	126.03	128.60
69	A5	3714	U	C5-C6-N1	5.14	125.27	122.70
69	A5	3921	A	N3-C4-C5	-5.14	123.20	126.80
70	B2	1191	C	C5-C6-N1	5.14	123.57	121.00
69	A5	1718	G	C5-N7-C8	-5.14	101.73	104.30
69	A5	3120	C	N1-C2-O2	5.14	121.98	118.90
69	A5	1055	U	C2-N1-C1'	5.14	123.87	117.70
69	A5	1131	C	N3-C2-O2	-5.14	118.30	121.90
69	A5	1138	C	OP1-P-O3'	5.14	116.51	105.20
69	A5	3413	C	N1-C2-O2	5.14	121.98	118.90
69	A5	2168	G	N1-C6-O6	-5.14	116.82	119.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	B2	878	C	C6-N1-C2	-5.14	118.25	120.30
40	A8	66	U	N1-C2-O2	5.14	126.39	122.80
69	A5	464	G	N1-C6-O6	-5.14	116.82	119.90
69	A5	1101	A	N7-C8-N9	5.14	116.37	113.80
69	A5	3607	C	C5-C6-N1	5.14	123.57	121.00
69	A5	315	G	C4-N9-C1'	5.13	133.18	126.50
69	A5	1359	G	N1-C6-O6	5.13	122.98	119.90
70	B2	1193	C	C6-N1-C2	-5.13	118.25	120.30
70	B2	1662	C	C6-N1-C2	-5.13	118.25	120.30
69	A5	1095	G	C5-C6-O6	5.13	131.68	128.60
69	A5	3728	A	C2-N3-C4	5.13	113.17	110.60
70	B2	1187	U	C6-N1-C1'	-5.13	114.01	121.20
40	A8	34	C	C2-N3-C4	5.13	122.47	119.90
69	A5	1295	A	C2-N3-C4	5.13	113.17	110.60
69	A5	1775	C	C6-N1-C2	-5.13	118.25	120.30
69	A5	651	A	O5'-P-OP2	-5.13	101.08	105.70
69	A5	2177	G	C6-C5-N7	5.13	133.48	130.40
69	A5	3267	C	N3-C2-O2	-5.13	118.31	121.90
69	A5	811	G	N7-C8-N9	5.13	115.66	113.10
69	A5	1374	C	N1-C2-O2	5.13	121.98	118.90
69	A5	1800	U	C5-C6-N1	5.13	125.27	122.70
69	A5	3226	A	N1-C2-N3	-5.13	126.74	129.30
69	A5	108	A	C8-N9-C4	-5.13	103.75	105.80
69	A5	2469	U	N3-C2-O2	-5.13	118.61	122.20
69	A5	3364	C	C5-C6-N1	5.13	123.56	121.00
69	A5	3529	A	N9-C4-C5	-5.13	103.75	105.80
70	B2	278	G	P-O3'-C3'	5.13	125.85	119.70
40	A8	112	C	O5'-P-OP1	-5.12	101.09	105.70
69	A5	108	A	N7-C8-N9	5.12	116.36	113.80
39	A7	65	C	C6-N1-C2	-5.12	118.25	120.30
69	A5	92	A	C5-N7-C8	-5.12	101.34	103.90
69	A5	832	U	C4-C5-C6	5.12	122.77	119.70
69	A5	3168	A	C5-C6-N6	-5.12	119.60	123.70
69	A5	3670	G	N3-C4-C5	-5.12	126.04	128.60
70	B2	1331	A	P-O3'-C3'	5.12	125.85	119.70
69	A5	316	U	C5-C6-N1	5.12	125.26	122.70
69	A5	792	U	N3-C2-O2	-5.12	118.61	122.20
69	A5	1721	C	C2-N3-C4	5.12	122.46	119.90
69	A5	1803	C	C6-N1-C1'	-5.12	114.65	120.80
70	B2	1844	C	N3-C2-O2	-5.12	118.31	121.90
69	A5	1414	C	N3-C4-C5	5.12	123.95	121.90
69	A5	2240	U	O5'-P-OP1	-5.12	101.09	105.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	B2	1960	A	C6-C5-N7	-5.12	128.72	132.30
69	A5	2507	C	C6-N1-C2	-5.12	118.25	120.30
69	A5	3591	A	O4'-C1'-N9	5.12	112.29	108.20
70	B2	1673	U	P-O3'-C3'	5.12	125.84	119.70
12	CS	6	LEU	CA-CB-CG	5.12	127.06	115.30
69	A5	394	G	N3-C4-N9	5.12	129.07	126.00
69	A5	1591	U	C6-N1-C2	-5.12	117.93	121.00
70	B2	301	U	N1-C2-O2	5.12	126.38	122.80
70	B2	947	U	C2-N1-C1'	5.12	123.84	117.70
39	A7	102	C	N1-C2-O2	5.11	121.97	118.90
69	A5	791	C	O4'-C1'-N1	5.11	112.29	108.20
69	A5	2790	G	N3-C4-N9	5.11	129.07	126.00
69	A5	3317	U	C6-N1-C2	-5.11	117.93	121.00
69	A5	3453	U	C5-C6-N1	5.11	125.26	122.70
69	A5	3730	G	C2-N3-C4	5.11	114.46	111.90
70	B2	1980	U	C5-C6-N1	5.11	125.26	122.70
69	A5	797	A	OP2-P-O3'	5.11	116.45	105.20
69	A5	2572	G	C4-C5-N7	5.11	112.84	110.80
69	A5	2774	G	C2-N3-C4	5.11	114.45	111.90
69	A5	1058	A	C2-N3-C4	5.11	113.15	110.60
69	A5	1365	U	N3-C4-C5	-5.11	111.53	114.60
69	A5	3643	C	C2-N1-C1'	5.11	124.42	118.80
69	A5	863	U	N3-C2-O2	-5.11	118.62	122.20
69	A5	990	U	N3-C2-O2	-5.11	118.62	122.20
69	A5	2656	C	N3-C2-O2	-5.11	118.33	121.90
69	A5	85	U	OP1-P-O3'	5.11	116.43	105.20
69	A5	1132	U	OP1-P-O3'	5.11	116.43	105.20
69	A5	1910	C	O5'-P-OP1	-5.11	101.11	105.70
69	A5	2038	A	O4'-C1'-N9	5.11	112.28	108.20
69	A5	2584	G	N7-C8-N9	5.11	115.65	113.10
69	A5	3969	G	OP1-P-O3'	5.11	116.43	105.20
69	A5	658	A	N3-C4-N9	5.10	131.48	127.40
69	A5	1662	U	O5'-P-OP1	-5.10	101.11	105.70
69	A5	3264	A	C4-C5-N7	5.10	113.25	110.70
69	A5	822	G	O5'-P-OP2	-5.10	101.11	105.70
69	A5	3139	G	N3-C4-N9	5.10	129.06	126.00
69	A5	3839	A	O5'-P-OP1	5.10	116.82	110.70
70	B2	431	G	C4-N9-C1'	5.10	133.13	126.50
27	Ck	12	LEU	CA-CB-CG	5.10	127.03	115.30
69	A5	2016	U	O4'-C1'-N1	5.10	112.28	108.20
69	A5	1141	G	C6-C5-N7	5.10	133.46	130.40
69	A5	1607	A	N1-C6-N6	-5.10	115.54	118.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1736	G	C8-N9-C4	-5.10	104.36	106.40
69	A5	1795	A	C4-N9-C1'	5.10	135.48	126.30
41	Ag	110	LEU	CA-CB-CG	5.10	127.02	115.30
69	A5	3417	C	O5'-P-OP1	-5.10	101.11	105.70
70	B2	1960	A	C8-N9-C1'	-5.10	118.52	127.70
69	A5	1350	A	N9-C4-C5	-5.10	103.76	105.80
70	B2	1552	C	N1-C2-O2	5.10	121.96	118.90
69	A5	164	U	C6-N1-C2	-5.09	117.94	121.00
69	A5	3404	A	C5-N7-C8	-5.09	101.35	103.90
38	A9	24	G	N7-C8-N9	5.09	115.64	113.10
69	A5	1367	A	N1-C6-N6	-5.09	115.55	118.60
69	A5	3676	C	N3-C4-N4	-5.09	114.44	118.00
69	A5	126	G	N3-C4-C5	-5.09	126.06	128.60
69	A5	1207	G	C5-C6-N1	5.09	114.05	111.50
51	AB	120	TRP	CA-CB-CG	-5.09	104.03	113.70
69	A5	445	C	N3-C2-O2	-5.09	118.34	121.90
69	A5	832	U	C5-C6-N1	-5.09	120.16	122.70
69	A5	1594	U	C5-C6-N1	5.09	125.24	122.70
69	A5	1750	G	N3-C2-N2	-5.09	116.34	119.90
69	A5	654	G	C6-C5-N7	-5.08	127.35	130.40
69	A5	805	C	C2-N1-C1'	5.08	124.39	118.80
69	A5	1651	C	C6-N1-C2	-5.08	118.27	120.30
70	B2	1788	C	C6-N1-C1'	-5.08	114.70	120.80
13	CT	40	VAL	CG1-CB-CG2	-5.08	102.77	110.90
36	CE	65	SER	C-N-CA	5.08	134.41	121.70
40	A8	84	U	C6-N1-C2	-5.08	117.95	121.00
69	A5	920	G	C8-N9-C4	5.08	108.43	106.40
69	A5	2534	G	C8-N9-C4	-5.08	104.37	106.40
69	A5	2567	U	N1-C2-O2	5.08	126.36	122.80
69	A5	2679	U	C5-C4-O4	-5.08	122.85	125.90
69	A5	3283	U	O4'-C1'-N1	5.08	112.27	108.20
69	A5	3778	U	C5-C6-N1	5.08	125.24	122.70
18	Cr	76	ARG	C-N-CA	5.08	143.34	122.00
40	A8	15	G	N3-C4-C5	5.08	131.14	128.60
69	A5	1026	G	C8-N9-C1'	-5.08	120.39	127.00
69	A5	1269	U	N3-C2-O2	-5.08	118.64	122.20
69	A5	3142	G	N1-C6-O6	-5.08	116.85	119.90
69	A5	3512	U	N1-C2-O2	5.08	126.36	122.80
69	A5	760	G	C4-C5-N7	5.08	112.83	110.80
69	A5	2517	A	O4'-C1'-N9	5.08	112.26	108.20
69	A5	190	A	P-O3'-C3'	5.08	125.80	119.70
69	A5	826	A	C2-N3-C4	5.08	113.14	110.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1374	C	N3-C2-O2	-5.08	118.35	121.90
39	A7	47	C	C2-N1-C1'	5.08	124.39	118.80
69	A5	103	A	N1-C2-N3	-5.08	126.76	129.30
68	Cz	116	LEU	CA-CB-CG	5.08	126.97	115.30
69	A5	1795	A	N7-C8-N9	5.08	116.34	113.80
69	A5	2515	C	N1-C2-O2	5.08	121.94	118.90
69	A5	2652	U	N1-C2-O2	5.07	126.35	122.80
40	A8	24	G	C5-C6-O6	5.07	131.64	128.60
69	A5	2513	G	N3-C4-C5	-5.07	126.06	128.60
9	CQ	156	PRO	N-CA-C	5.07	125.28	112.10
69	A5	772	G	N3-C4-N9	5.07	129.04	126.00
69	A5	1588	A	C4-N9-C1'	5.07	135.43	126.30
69	A5	1668	U	C2-N1-C1'	5.07	123.78	117.70
69	A5	1734	G	N3-C4-C5	-5.07	126.07	128.60
69	A5	3281	G	C5-N7-C8	5.07	106.83	104.30
69	A5	3399	C	C6-N1-C2	-5.07	118.27	120.30
70	B2	458	C	C6-N1-C2	-5.07	118.27	120.30
70	B2	1056	C	C6-N1-C2	-5.07	118.27	120.30
40	A8	28	A	N1-C6-N6	-5.07	115.56	118.60
69	A5	804	C	N1-C2-O2	5.07	121.94	118.90
69	A5	828	G	C8-N9-C4	-5.07	104.37	106.40
69	A5	2509	G	N1-C6-O6	-5.07	116.86	119.90
69	A5	2747	G	N3-C2-N2	5.07	123.45	119.90
69	A5	3742	C	C6-N1-C2	-5.07	118.27	120.30
69	A5	582	A	N7-C8-N9	5.06	116.33	113.80
69	A5	3644	C	C6-N1-C2	-5.06	118.27	120.30
69	A5	523	C	P-O3'-C3'	5.06	125.78	119.70
69	A5	379	A	N1-C2-N3	-5.06	126.77	129.30
69	A5	2072	C	N1-C2-O2	5.06	121.94	118.90
69	A5	2731	G	N3-C2-N2	5.06	123.44	119.90
69	A5	3719	A	P-O3'-C3'	5.06	125.77	119.70
69	A5	1000	G	C4-C5-N7	5.06	112.82	110.80
69	A5	1997	C	C5-C6-N1	5.06	123.53	121.00
69	A5	2662	C	N1-C2-O2	5.06	121.94	118.90
39	A7	79	U	N3-C2-O2	-5.06	118.66	122.20
69	A5	1351	C	N3-C4-C5	5.06	123.92	121.90
69	A5	1722	U	N1-C2-O2	5.06	126.34	122.80
69	A5	3445	C	C5-C6-N1	5.06	123.53	121.00
69	A5	3517	U	C2-N1-C1'	5.06	123.77	117.70
69	A5	206	C	N3-C2-O2	-5.05	118.36	121.90
69	A5	241	C	C6-N1-C1'	-5.05	114.73	120.80
69	A5	413	A	C5-N7-C8	-5.05	101.37	103.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	1880	A	O5'-P-OP2	-5.05	101.15	105.70
69	A5	2556	A	N1-C6-N6	-5.05	115.57	118.60
69	A5	2803	A	C8-N9-C4	-5.05	103.78	105.80
69	A5	831	A	N9-C4-C5	5.05	107.82	105.80
69	A5	2584	G	C6-C5-N7	-5.05	127.37	130.40
69	A5	3879	A	N1-C6-N6	-5.05	115.57	118.60
70	B2	1853	U	N3-C2-O2	-5.05	118.66	122.20
69	A5	488	U	N3-C2-O2	-5.05	118.66	122.20
69	A5	726	U	N1-C2-O2	5.05	126.34	122.80
69	A5	927	A	N1-C2-N3	-5.05	126.77	129.30
70	B2	1596	C	C5-C6-N1	5.05	123.53	121.00
70	B2	1993	U	C6-N1-C2	-5.05	117.97	121.00
39	A7	76	U	N1-C2-O2	5.05	126.33	122.80
69	A5	3412	U	OP2-P-O3'	5.05	116.31	105.20
69	A5	100	G	N1-C6-O6	-5.05	116.87	119.90
69	A5	3720	A	O4'-C1'-N9	-5.05	104.16	108.20
70	B2	1960	A	C4-C5-N7	5.05	113.22	110.70
69	A5	68	G	C8-N9-C4	-5.04	104.38	106.40
69	A5	1293	A	C2-N3-C4	5.04	113.12	110.60
69	A5	1546	U	O4'-C1'-N1	-5.04	104.16	108.20
69	A5	2207	A	N1-C6-N6	5.04	121.63	118.60
69	A5	3246	G	C4-N9-C1'	-5.04	119.94	126.50
16	CY	15	ARG	NE-CZ-NH1	5.04	122.82	120.30
40	A8	44	C	N3-C2-O2	-5.04	118.37	121.90
69	A5	1590	A	C8-N9-C4	-5.04	103.78	105.80
69	A5	3619	U	C5-C6-N1	5.04	125.22	122.70
70	B2	623	G	C8-N9-C4	-5.04	104.38	106.40
69	A5	68	G	C5-C6-N1	5.04	114.02	111.50
69	A5	104	A	C5-N7-C8	-5.04	101.38	103.90
69	A5	1198	U	C6-N1-C2	-5.04	117.97	121.00
69	A5	3139	G	N3-C4-C5	-5.04	126.08	128.60
69	A5	3271	G	C5-N7-C8	-5.04	101.78	104.30
69	A5	3334	A	C8-N9-C4	5.04	107.82	105.80
73	AK	35	LEU	CA-CB-CG	5.04	126.89	115.30
69	A5	163	A	C6-N1-C2	-5.04	115.58	118.60
69	A5	1051	C	N1-C2-O2	5.04	121.92	118.90
69	A5	1297	G	N9-C4-C5	-5.04	103.38	105.40
40	A8	14	G	OP2-P-O3'	5.04	116.28	105.20
69	A5	1009	G	C5-C6-O6	5.04	131.62	128.60
69	A5	1609	U	C6-N1-C2	-5.04	117.98	121.00
69	A5	3292	C	C5-C4-N4	5.04	123.73	120.20
69	A5	3222	G	O4'-C1'-N9	5.04	112.23	108.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	335	A	OP1-P-O3'	5.04	116.28	105.20
69	A5	631	A	C4-N9-C1'	5.04	135.37	126.30
69	A5	541	A	N7-C8-N9	-5.03	111.28	113.80
69	A5	792	U	C4-C5-C6	-5.03	116.68	119.70
69	A5	988	C	C6-N1-C2	-5.03	118.29	120.30
69	A5	1709	A	N1-C6-N6	-5.03	115.58	118.60
69	A5	1801	U	C1'-O4'-C4'	-5.03	105.87	109.90
69	A5	3845	A	C8-N9-C4	-5.03	103.79	105.80
70	B2	1940	G	C8-N9-C4	5.03	108.41	106.40
69	A5	1161	C	OP1-P-OP2	-5.03	112.05	119.60
69	A5	2517	A	N1-C2-N3	5.03	131.82	129.30
69	A5	3620	G	N3-C4-C5	5.03	131.12	128.60
40	A8	18	C	OP2-P-O3'	5.03	116.27	105.20
69	A5	577	A	C2-N3-C4	5.03	113.11	110.60
69	A5	3861	A	P-O3'-C3'	5.03	125.74	119.70
70	B2	1582	C	N3-C2-O2	-5.03	118.38	121.90
70	B2	1861	U	N1-C2-O2	5.03	126.32	122.80
39	A7	71	G	N1-C6-O6	5.03	122.92	119.90
69	A5	128	C	N1-C2-O2	5.03	121.92	118.90
69	A5	284	A	C8-N9-C4	-5.03	103.79	105.80
69	A5	823	U	N1-C2-O2	5.03	126.32	122.80
69	A5	2553	U	O5'-P-OP2	-5.03	101.17	105.70
70	B2	1345	U	N1-C2-O2	5.03	126.32	122.80
69	A5	522	G	C6-C5-N7	-5.03	127.39	130.40
69	A5	541	A	O4'-C1'-N9	5.03	112.22	108.20
69	A5	1734	G	C5-C6-N1	5.03	114.01	111.50
69	A5	3000	G	C8-N9-C4	-5.03	104.39	106.40
69	A5	3365	G	C6-C5-N7	-5.03	127.38	130.40
69	A5	1103	U	N3-C2-O2	-5.02	118.68	122.20
69	A5	2731	G	O5'-P-OP2	5.02	116.73	110.70
69	A5	3809	U	N1-C2-O2	5.02	126.32	122.80
39	A7	48	G	O4'-C1'-N9	5.02	112.22	108.20
69	A5	1626	A	C4-C5-N7	5.02	113.21	110.70
69	A5	2771	G	C5-N7-C8	-5.02	101.79	104.30
79	Cg	58	ARG	NE-CZ-NH2	-5.02	117.79	120.30
69	A5	1128	C	C5-C6-N1	5.02	123.51	121.00
69	A5	2205	G	O5'-P-OP2	-5.02	101.18	105.70
69	A5	2670	U	C5-C6-N1	5.02	125.21	122.70
69	A5	2769	G	C5-C6-N1	5.02	114.01	111.50
69	A5	3687	A	C8-N9-C4	-5.02	103.79	105.80
38	A9	27	U	N1-C2-O2	5.02	126.31	122.80
69	A5	394	G	C5-C6-O6	-5.02	125.59	128.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	A5	509	A	C5-C6-N1	5.02	120.21	117.70
69	A5	2511	C	N1-C2-O2	5.02	121.91	118.90
69	A5	2621	A	N1-C6-N6	-5.02	115.59	118.60
70	B2	342	G	N1-C2-N2	-5.02	111.68	116.20
69	A5	674	A	C5-N7-C8	-5.01	101.39	103.90
69	A5	2622	A	C8-N9-C4	-5.01	103.79	105.80
69	A5	1750	G	O5'-P-OP2	-5.01	101.19	105.70
69	A5	802	G	N1-C2-N2	-5.01	111.69	116.20
69	A5	1055	U	C5-C6-N1	5.01	125.21	122.70
69	A5	2014	C	N1-C2-O2	5.01	121.91	118.90
63	AC	159	LYS	CA-CB-CG	5.01	124.42	113.40
69	A5	299	G	C8-N9-C4	-5.01	104.40	106.40
69	A5	838	U	N3-C2-O2	-5.01	118.69	122.20
69	A5	1638	G	N1-C6-O6	-5.01	116.89	119.90
69	A5	3402	C	C6-N1-C2	-5.01	118.30	120.30
69	A5	1639	U	OP1-P-O3'	5.01	116.22	105.20
69	A5	383	A	C8-N9-C4	5.01	107.80	105.80
69	A5	1005	G	O4'-C1'-N9	5.01	112.21	108.20
69	A5	1289	C	C5-C6-N1	5.01	123.50	121.00
69	A5	2683	G	C8-N9-C1'	-5.01	120.49	127.00
70	B2	1942	G	C4-C5-N7	5.01	112.80	110.80
5	Ca	116	GLY	N-CA-C	5.00	125.61	113.10
69	A5	464	G	C4-N9-C1'	-5.00	120.00	126.50
69	A5	805	C	N3-C4-N4	-5.00	114.50	118.00
69	A5	1098	U	N3-C4-O4	-5.00	115.90	119.40
69	A5	206	C	C6-N1-C2	-5.00	118.30	120.30
69	A5	546	G	C5-C6-N1	-5.00	109.00	111.50
69	A5	1701	C	O5'-P-OP2	-5.00	101.20	105.70
69	A5	2546	G	C5-C6-N1	5.00	114.00	111.50
69	A5	2658	A	C8-N9-C4	5.00	107.80	105.80
69	A5	3129	U	C5-C6-N1	5.00	125.20	122.70
70	B2	294	C	C6-N1-C2	-5.00	118.30	120.30

There are no chirality outliers.

All (290) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
52	AA	200	ASP	Peptide
52	AA	7	ILE	Peptide
51	AB	118	LYS	Peptide
51	AB	119	LYS	Peptide
51	AB	183	ASP	Peptide

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
51	AB	215	ILE	Peptide
63	AC	186	GLY	Peptide
63	AC	241	GLU	Peptide
58	AD	145	ARG	Peptide
58	AD	195	ASP	Peptide
58	AD	199	LYS	Peptide
58	AD	204	LYS	Peptide
58	AD	205	PRO	Peptide
58	AD	224	PRO	Peptide
62	AE	240	LYS	Peptide
74	AF	218	LYS	Peptide
74	AF	61	LEU	Peptide
64	AG	218	LYS	Peptide
64	AG	99	GLY	Peptide
65	AH	113	LYS	Peptide
65	AH	187	PHE	Peptide
65	AH	64	ILE	Peptide
66	AI	49	ARG	Peptide
66	AI	98	LYS	Peptide
61	AJ	139	ARG	Peptide
61	AJ	170	ARG	Peptide
61	AJ	5	ARG	Peptide
61	AJ	9	VAL	Peptide
45	AM	101	ILE	Peptide
45	AM	22	ASN	Peptide
45	AM	60	ALA	Peptide
43	AO	127	GLY	Peptide
43	AO	137	SER	Peptide
43	AO	98	ARG	Peptide
43	AO	99	ALA	Peptide
50	AP	31	MET	Peptide
50	AP	53	LYS	Peptide
50	AP	88	ILE	Peptide
67	AQ	114	LEU	Peptide
67	AQ	17	ARG	Peptide
67	AQ	19	LYS	Peptide
67	AQ	3	GLN	Peptide
67	AQ	45	GLU	Peptide
72	AT	10	ASP	Peptide
72	AT	41	LYS	Peptide
72	AT	95	ALA	Peptide
53	AV	10	ASP	Peptide

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
53	AV	40	ASP	Peptide
44	AX	89	GLY	Peptide
54	AY	86	PHE	Peptide
55	AZ	57	LEU	Peptide
55	AZ	58	TYR	Peptide
55	AZ	59	LYS	Peptide
55	AZ	60	GLU	Peptide
56	Aa	85	ARG	Peptide
56	Aa	99	LEU	Peptide
57	Ab	49	HIS	Peptide
75	Ac	20	GLN	Peptide
46	Ad	33	LYS	Peptide
59	Ae	96	LYS	Peptide
60	Af	110	GLU	Peptide
60	Af	111	ASN	Peptide
60	Af	135	HIS	Peptide
60	Af	136	GLU	Peptide
60	Af	143	LYS	Peptide
60	Af	144	CYS	Peptide
60	Af	151	SER	Peptide
60	Af	152	LYS	Peptide
60	Af	87	THR	Peptide
60	Af	89	LYS	Peptide
11	CA	13	GLY	Peptide
11	CA	142	ASP	Peptide
11	CA	195	SER	Peptide
11	CA	196	TRP	Peptide
21	CB	145	SER	Peptide
21	CB	17	TYR	Peptide
21	CB	18	PRO	Peptide
21	CB	270	GLY	Peptide
21	CB	290	GLY	Peptide
21	CB	292	HIS	Peptide
21	CB	3	HIS	Peptide
21	CB	311	ASP	Peptide
21	CB	323	TYR	Peptide
21	CB	325	GLU	Peptide
21	CB	33	PRO	Peptide
21	CB	334	LYS	Peptide
21	CB	35	ASP	Peptide
21	CB	39	LYS	Peptide
21	CB	393	LYS	Peptide

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
21	CB	40	PRO	Peptide
21	CB	56	ILE	Peptide
21	CB	63	PRO	Peptide
29	CC	105	PHE	Peptide
29	CC	134	SER	Peptide
29	CC	17	ASN	Peptide
29	CC	203	ARG	Peptide
29	CC	297	LYS	Peptide
29	CC	309	ARG	Peptide
29	CC	312	VAL	Peptide
29	CC	314	ARG	Peptide
29	CC	316	VAL	Peptide
29	CC	6	ALA	Peptide
29	CC	69	SER	Peptide
29	CC	8	PRO	Peptide
29	CC	91	GLY	Peptide,Mainchain
29	CC	92	GLN	Peptide
8	CD	175	HIS	Peptide
8	CD	187	THR	Peptide
8	CD	43	LYS	Peptide
8	CD	8	LYS	Peptide
8	CD	9	ASN	Peptide
36	CE	170	ARG	Peptide
36	CE	175	LYS	Peptide
36	CE	19	LYS	Peptide
36	CE	191	ARG	Peptide
36	CE	193	VAL	Peptide
36	CE	221	PHE	Peptide
36	CE	228	ASN	Peptide
36	CE	23	ASN	Peptide
36	CE	237	TYR	Peptide
36	CE	239	HIS	Peptide
36	CE	25	TYR	Peptide
36	CE	26	LEU	Peptide
36	CE	32	ARG	Peptide
36	CE	35	LYS	Peptide
36	CE	48	LYS	Peptide
36	CE	60	VAL	Peptide
36	CE	64	LYS	Peptide
36	CE	68	SER	Peptide
36	CE	69	TYR	Peptide
36	CE	71	THR	Peptide

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
36	CE	72	LYS	Peptide
36	CE	75	VAL	Peptide
36	CE	82	ALA	Peptide
36	CE	83	ASN	Peptide
36	CE	88	LYS	Peptide
22	CF	171	PRO	Peptide
22	CF	235	GLY	Peptide,Mainchain
22	CF	99	ARG	Peptide
37	CG	168	PRO	Peptide
37	CG	213	ASP	Peptide
37	CG	41	PRO	Peptide
37	CG	42	LYS	Peptide
37	CG	48	GLN	Peptide
37	CG	82	PRO	Peptide
37	CG	87	GLN	Peptide
37	CG	88	PHE	Peptide
37	CG	93	ASP	Peptide
35	CH	106	ASN	Peptide
35	CH	162	SER	Peptide
35	CH	22	ALA	Peptide
35	CH	40	HIS	Peptide
7	CI	118	ALA	Peptide
7	CI	13	LYS	Peptide
7	CI	188	ASN	Peptide
7	CI	199	TYR	Peptide
7	CI	9	TYR	Peptide
34	CJ	102	GLU	Peptide
34	CJ	160	HIS	Peptide
34	CJ	85	GLU	Peptide
34	CJ	96	GLU	Peptide
2	CL	124	ILE	Peptide
2	CL	133	ILE	Peptide
2	CL	154	LEU	Peptide
2	CL	159	GLU	Peptide
2	CL	160	GLN	Peptide
2	CL	169	VAL	Peptide
2	CL	3	LYS	Peptide
2	CL	4	GLY	Peptide
2	CL	51	SER	Peptide
2	CL	57	VAL	Peptide
2	CL	58	VAL	Peptide
2	CL	6	ASN	Peptide

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
2	CL	75	PHE	Peptide
2	CL	96	ALA	Peptide
4	CM	103	SER	Peptide
4	CM	127	PHE	Peptide
6	CN	182	GLN	Peptide
6	CN	186	GLY	Peptide
6	CN	28	TRP	Peptide
6	CN	41	ARG	Peptide
6	CN	64	ILE	Peptide
6	CN	66	VAL	Peptide
6	CN	78	GLY	Peptide
1	CO	109	GLY	Peptide
1	CO	111	PRO	Peptide
1	CO	112	SER	Peptide
1	CO	177	LYS	Peptide
1	CO	190	ALA	Peptide
1	CO	191	ALA	Peptide
1	CO	198	ILE	Peptide
1	CO	201	TYR	Peptide
1	CO	202	GLY	Peptide
14	CP	20	PRO	Peptide
14	CP	63	PHE	Peptide
14	CP	9	ASP	Peptide
9	CQ	156	PRO	Peptide
9	CQ	160	HIS	Peptide
9	CQ	163	THR	Peptide
9	CQ	4	ASP	Peptide
9	CQ	5	ILE	Peptide
10	CR	112	SER	Peptide
10	CR	113	LYS	Peptide
10	CR	170	ARG	Peptide
12	CS	118	ARG	Peptide
12	CS	120	ARG	Peptide
12	CS	138	ARG	Peptide
12	CS	15	ARG	Peptide
12	CS	157	ARG	Peptide
12	CS	162	GLY	Peptide
12	CS	163	ASN	Peptide
12	CS	175	TYR	Peptide
12	CS	55	LYS	Peptide
12	CS	67	VAL	Peptide
12	CS	88	SER	Peptide

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
13	CT	135	PRO	Peptide
13	CT	145	GLU	Peptide
13	CT	147	PRO	Peptide
13	CT	157	PHE	Peptide
13	CT	3	ASN	Peptide
13	CT	4	SER	Peptide
13	CT	54	TYR	Peptide
13	CT	6	GLY	Peptide
76	CU	286	PHE	Peptide
78	CW	60	ARG	Peptide
16	CY	63	LYS	Peptide
16	CY	64	GLY	Peptide
5	Ca	115	ARG	Peptide
5	Ca	144	VAL	Peptide
5	Ca	57	VAL	Peptide
5	Ca	58	GLY	Peptide
5	Ca	98	LYS	Peptide
20	Cb	19	ASN	Peptide
20	Cb	21	ILE	Peptide
20	Cb	3	LYS	Peptide
20	Cb	43	GLN	Peptide
80	Cd	39	ALA	Peptide
24	Ce	14	LYS	Peptide
24	Ce	2	THR	Peptide
24	Ce	5	PRO	Peptide
25	Cf	101	LYS	Peptide
25	Cf	108	PRO	Peptide
25	Cf	137	ARG	Peptide
25	Cf	37	ALA	Peptide
25	Cf	39	VAL	Peptide
25	Cf	42	LYS	Peptide
25	Cf	44	TYR	Peptide
25	Cf	45	LYS	Peptide
25	Cf	46	ARG	Peptide
25	Cf	47	HIS	Peptide
25	Cf	49	ARG	Peptide
79	Cg	72	VAL	Peptide
19	Ch	121	VAL	Peptide
19	Ch	42	SER	Peptide
19	Ch	43	LYS	Peptide
19	Ch	73	PHE	Peptide
19	Ch	84	ARG	Peptide

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
26	Ci	12	ASN	Peptide
26	Ci	3	VAL	Peptide
26	Ci	37	SER	Peptide
26	Ci	41	ASN	Peptide
26	Ci	43	GLN	Peptide
26	Ci	87	LEU	Peptide
26	Ci	9	ILE	Peptide
27	Ck	39	SER	Peptide
27	Ck	40	ARG	Peptide
30	Cm	124	LYS	Peptide
30	Cm	125	LYS	Peptide
33	Co	26	TYR	Peptide
33	Co	34	GLY	Peptide
33	Co	46	GLN	Peptide
18	Cr	108	LYS	Peptide
18	Cr	25	VAL	Peptide
18	Cr	26	LYS	Peptide
18	Cr	41	SER	Peptide
18	Cr	43	ARG	Peptide
18	Cr	46	GLY	Peptide
18	Cr	50	LYS	Peptide
18	Cr	69	LYS	Peptide
18	Cr	71	GLY	Peptide
18	Cr	72	LYS	Peptide
18	Cr	75	GLN	Peptide
18	Cr	79	LYS	Peptide
18	Cr	80	ASN	Peptide
18	Cr	81	THR	Peptide
18	Cr	86	PHE	Peptide
68	Cz	101	LYS	Peptide
68	Cz	158	GLN	Peptide

## 5.2 Too-close contacts [i](#)

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

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	CO	203/205 (99%)	177 (87%)	24 (12%)	2 (1%)	15	53
2	CL	208/210 (99%)	154 (74%)	42 (20%)	12 (6%)	1	10
3	CV	132/134 (98%)	122 (92%)	10 (8%)	0	100	100
4	CM	157/159 (99%)	129 (82%)	27 (17%)	1 (1%)	25	64
5	Ca	147/149 (99%)	113 (77%)	33 (22%)	1 (1%)	22	60
6	CN	201/203 (99%)	166 (83%)	32 (16%)	3 (2%)	10	42
7	CI	215/217 (99%)	183 (85%)	30 (14%)	2 (1%)	17	55
8	CD	288/290 (99%)	247 (86%)	39 (14%)	2 (1%)	22	60
9	CQ	185/187 (99%)	160 (86%)	25 (14%)	0	100	100
10	CR	201/203 (99%)	183 (91%)	18 (9%)	0	100	100
11	CA	251/253 (99%)	211 (84%)	39 (16%)	1 (0%)	34	72
12	CS	171/173 (99%)	126 (74%)	37 (22%)	8 (5%)	2	14
13	CT	156/158 (99%)	130 (83%)	25 (16%)	1 (1%)	25	64
14	CP	183/185 (99%)	163 (89%)	19 (10%)	1 (0%)	29	68
15	CX	118/120 (98%)	98 (83%)	19 (16%)	1 (1%)	19	57
16	CY	129/131 (98%)	112 (87%)	16 (12%)	1 (1%)	19	57
17	CZ	132/134 (98%)	110 (83%)	21 (16%)	1 (1%)	19	57
18	Cr	132/134 (98%)	81 (61%)	47 (36%)	4 (3%)	4	24
19	Ch	121/123 (98%)	106 (88%)	15 (12%)	0	100	100
20	Cb	73/75 (97%)	59 (81%)	11 (15%)	3 (4%)	3	16
21	CB	412/414 (100%)	346 (84%)	56 (14%)	10 (2%)	6	29
22	CF	224/226 (99%)	199 (89%)	20 (9%)	5 (2%)	6	31
23	Cc	98/100 (98%)	94 (96%)	4 (4%)	0	100	100
24	Ce	130/132 (98%)	118 (91%)	11 (8%)	1 (1%)	19	57
25	Cf	155/157 (99%)	113 (73%)	36 (23%)	6 (4%)	3	17
26	Ci	111/113 (98%)	82 (74%)	28 (25%)	1 (1%)	17	55
27	Ck	68/70 (97%)	61 (90%)	7 (10%)	0	100	100
28	Cl	48/50 (96%)	45 (94%)	3 (6%)	0	100	100
29	CC	390/392 (100%)	318 (82%)	67 (17%)	5 (1%)	12	45

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	Cm	50/52 (96%)	43 (86%)	6 (12%)	1 (2%)	7	34
31	Cn	23/25 (92%)	21 (91%)	2 (9%)	0	100	100
32	Cp	89/91 (98%)	80 (90%)	9 (10%)	0	100	100
33	Co	102/104 (98%)	82 (80%)	18 (18%)	2 (2%)	7	34
34	CJ	180/182 (99%)	149 (83%)	30 (17%)	1 (1%)	25	64
35	CH	188/190 (99%)	164 (87%)	21 (11%)	3 (2%)	9	40
36	CE	226/228 (99%)	157 (70%)	62 (27%)	7 (3%)	4	23
37	CG	239/241 (99%)	194 (81%)	43 (18%)	2 (1%)	19	57
41	Ag	316/318 (99%)	265 (84%)	51 (16%)	0	100	100
42	AU	100/102 (98%)	89 (89%)	11 (11%)	0	100	100
43	AO	125/127 (98%)	100 (80%)	25 (20%)	0	100	100
44	AX	141/143 (99%)	120 (85%)	20 (14%)	1 (1%)	22	60
45	AM	117/119 (98%)	85 (73%)	32 (27%)	0	100	100
46	Ad	50/52 (96%)	33 (66%)	17 (34%)	0	100	100
47	AN	148/150 (99%)	137 (93%)	11 (7%)	0	100	100
48	AL	153/155 (99%)	133 (87%)	19 (12%)	1 (1%)	22	60
49	AR	118/120 (98%)	92 (78%)	25 (21%)	1 (1%)	19	57
50	AP	122/124 (98%)	96 (79%)	26 (21%)	0	100	100
51	AB	218/220 (99%)	176 (81%)	37 (17%)	5 (2%)	6	30
52	AA	216/218 (99%)	179 (83%)	36 (17%)	1 (0%)	29	68
53	AV	80/82 (98%)	67 (84%)	13 (16%)	0	100	100
54	AY	124/126 (98%)	101 (82%)	22 (18%)	1 (1%)	19	57
55	AZ	72/74 (97%)	56 (78%)	16 (22%)	0	100	100
56	Aa	105/107 (98%)	86 (82%)	18 (17%)	1 (1%)	15	53
57	Ab	82/84 (98%)	64 (78%)	18 (22%)	0	100	100
58	AD	225/227 (99%)	179 (80%)	44 (20%)	2 (1%)	17	55
59	Ae	56/58 (97%)	39 (70%)	17 (30%)	0	100	100
60	Af	78/80 (98%)	57 (73%)	21 (27%)	0	100	100
61	AJ	179/181 (99%)	152 (85%)	26 (14%)	1 (1%)	25	64
62	AE	259/261 (99%)	215 (83%)	42 (16%)	2 (1%)	19	57
63	AC	225/227 (99%)	188 (84%)	35 (16%)	2 (1%)	17	55

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
64	AG	229/231 (99%)	197 (86%)	30 (13%)	2 (1%)	17	55
65	AH	192/194 (99%)	161 (84%)	31 (16%)	0	100	100
66	AI	205/207 (99%)	161 (78%)	41 (20%)	3 (2%)	10	42
67	AQ	146/148 (99%)	116 (80%)	29 (20%)	1 (1%)	22	60
68	Cz	215/217 (99%)	175 (81%)	40 (19%)	0	100	100
71	AW	127/129 (98%)	117 (92%)	10 (8%)	0	100	100
72	AT	122/126 (97%)	92 (75%)	29 (24%)	1 (1%)	19	57
73	AK	88/90 (98%)	64 (73%)	24 (27%)	0	100	100
74	AF	187/189 (99%)	146 (78%)	41 (22%)	0	100	100
75	Ac	60/62 (97%)	49 (82%)	11 (18%)	0	100	100
76	CU	97/99 (98%)	73 (75%)	23 (24%)	1 (1%)	15	53
77	Cj	85/87 (98%)	74 (87%)	10 (12%)	1 (1%)	13	48
78	CW	58/60 (97%)	53 (91%)	5 (9%)	0	100	100
79	Cg	101/103 (98%)	90 (89%)	10 (10%)	1 (1%)	15	53
80	Cd	105/107 (98%)	97 (92%)	8 (8%)	0	100	100
81	AS	134/136 (98%)	117 (87%)	16 (12%)	1 (1%)	22	60
All	All	11596/11750 (99%)	9587 (83%)	1892 (16%)	117 (1%)	20	53

All (117) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	CO	112	SER
1	CO	113	PRO
2	CL	7	MET
2	CL	148	GLN
2	CL	160	GLN
8	CD	20	PHE
21	CB	19	LYS
21	CB	41	VAL
22	CF	171	PRO
22	CF	236	ASP
22	CF	237	PHE
26	Ci	44	THR
29	CC	6	ALA
34	CJ	97	TYR
36	CE	69	TYR

Continued on next page...

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	AB	120	TRP
51	AB	183	ASP
51	AB	184	LEU
66	AI	99	ASN
2	CL	46	PHE
2	CL	76	THR
2	CL	77	LEU
2	CL	97	VAL
5	Ca	79	LEU
12	CS	54	PHE
12	CS	68	TYR
12	CS	119	ALA
12	CS	133	PRO
12	CS	174	THR
13	CT	5	LYS
16	CY	63	LYS
21	CB	40	PRO
21	CB	64	GLY
21	CB	271	GLN
21	CB	394	LYS
21	CB	395	ASP
22	CF	100	GLY
24	Ce	15	ARG
29	CC	92	GLN
33	Co	27	LYS
35	CH	110	ILE
36	CE	24	SER
51	AB	119	LYS
52	AA	32	PHE
76	CU	279	ASP
2	CL	125	LEU
2	CL	161	PRO
4	CM	104	LEU
6	CN	149	ASN
11	CA	231	ALA
12	CS	139	ARG
17	CZ	97	PRO
18	Cr	70	LYS
18	Cr	82	VAL
20	Cb	7	HIS
20	Cb	24	PRO
29	CC	313	PHE

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	CH	23	ARG
37	CG	44	PHE
66	AI	141	LYS
79	Cg	73	SER
2	CL	159	GLU
7	CI	205	PRO
20	Cb	4	SER
21	CB	312	LYS
25	Cf	21	PRO
25	Cf	138	ASN
29	CC	204	ARG
36	CE	60	VAL
56	Aa	100	ARG
58	AD	202	PRO
62	AE	241	GLY
63	AC	242	MET
64	AG	149	LYS
67	AQ	46	PRO
77	Cj	86	PRO
2	CL	152	PRO
6	CN	187	SER
8	CD	221	ARG
12	CS	171	LYS
14	CP	21	ASN
25	Cf	38	LYS
30	Cm	125	LYS
36	CE	61	PRO
36	CE	193	VAL
44	AX	96	GLU
48	AL	28	LYS
51	AB	41	THR
54	AY	6	ALA
64	AG	100	CYS
66	AI	143	ARG
6	CN	188	ARG
15	CX	227	LYS
21	CB	190	ILE
25	Cf	108	PRO
33	Co	30	LYS
35	CH	109	VAL
36	CE	89	ARG
12	CS	152	PHE

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
18	Cr	71	GLY
49	AR	45	PRO
72	AT	86	GLY
81	AS	140	GLY
21	CB	39	LYS
22	CF	172	ILE
29	CC	93	GLY
58	AD	200	ILE
63	AC	159	LYS
2	CL	61	PRO
25	Cf	139	LEU
36	CE	70	PRO
61	AJ	7	PRO
25	Cf	107	HIS
62	AE	239	PRO
7	CI	206	ILE
37	CG	168	PRO
18	Cr	77	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	CO	175/175 (100%)	175 (100%)	0	100	100
2	CL	173/173 (100%)	168 (97%)	5 (3%)	42	76
3	CV	101/101 (100%)	99 (98%)	2 (2%)	55	83
4	CM	138/138 (100%)	136 (99%)	2 (1%)	67	88
5	Ca	122/122 (100%)	121 (99%)	1 (1%)	81	93
6	CN	174/174 (100%)	169 (97%)	5 (3%)	42	76
7	CI	187/187 (100%)	187 (100%)	0	100	100
8	CD	241/241 (100%)	238 (99%)	3 (1%)	71	90
9	CQ	164/164 (100%)	159 (97%)	5 (3%)	41	75
10	CR	176/176 (100%)	173 (98%)	3 (2%)	60	85

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	CA	195/195 (100%)	192 (98%)	3 (2%)	65	87
12	CS	156/156 (100%)	152 (97%)	4 (3%)	46	78
13	CT	137/137 (100%)	135 (98%)	2 (2%)	65	87
14	CP	160/160 (100%)	155 (97%)	5 (3%)	40	75
15	CX	106/106 (100%)	103 (97%)	3 (3%)	43	77
16	CY	116/116 (100%)	112 (97%)	4 (3%)	37	72
17	CZ	121/121 (100%)	121 (100%)	0	100	100
18	Cr	112/112 (100%)	110 (98%)	2 (2%)	59	85
19	Ch	112/112 (100%)	110 (98%)	2 (2%)	59	85
20	Cb	67/67 (100%)	65 (97%)	2 (3%)	41	75
21	CB	349/349 (100%)	342 (98%)	7 (2%)	55	83
22	CF	200/200 (100%)	198 (99%)	2 (1%)	76	91
23	Cc	84/84 (100%)	83 (99%)	1 (1%)	71	90
24	Ce	120/120 (100%)	119 (99%)	1 (1%)	81	93
25	Cf	123/123 (100%)	119 (97%)	4 (3%)	38	73
26	Ci	100/100 (100%)	100 (100%)	0	100	100
27	Ck	65/65 (100%)	64 (98%)	1 (2%)	65	87
28	Cl	45/45 (100%)	45 (100%)	0	100	100
29	CC	323/323 (100%)	311 (96%)	12 (4%)	34	70
30	Cm	48/48 (100%)	46 (96%)	2 (4%)	30	66
31	Cn	23/23 (100%)	23 (100%)	0	100	100
32	Cp	74/74 (100%)	69 (93%)	5 (7%)	16	48
33	Co	94/94 (100%)	93 (99%)	1 (1%)	73	90
34	CJ	155/155 (100%)	154 (99%)	1 (1%)	86	95
35	CH	169/169 (100%)	167 (99%)	2 (1%)	71	90
36	CE	197/197 (100%)	190 (96%)	7 (4%)	35	70
37	CG	210/210 (100%)	207 (99%)	3 (1%)	67	88
41	Ag	280/280 (100%)	272 (97%)	8 (3%)	42	76
42	AU	95/95 (100%)	94 (99%)	1 (1%)	73	90
43	AO	98/98 (100%)	97 (99%)	1 (1%)	76	91
44	AX	116/116 (100%)	114 (98%)	2 (2%)	60	85

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	AM	104/104 (100%)	99 (95%)	5 (5%)	25	62
46	Ad	45/45 (100%)	45 (100%)	0	100	100
47	AN	130/130 (100%)	129 (99%)	1 (1%)	81	93
48	AL	138/138 (100%)	137 (99%)	1 (1%)	84	94
49	AR	108/108 (100%)	106 (98%)	2 (2%)	57	84
50	AP	111/111 (100%)	110 (99%)	1 (1%)	78	92
51	AB	199/199 (100%)	196 (98%)	3 (2%)	65	87
52	AA	190/190 (100%)	186 (98%)	4 (2%)	53	82
53	AV	67/67 (100%)	66 (98%)	1 (2%)	65	87
54	AY	105/106 (99%)	101 (96%)	4 (4%)	33	69
55	AZ	67/67 (100%)	66 (98%)	1 (2%)	65	87
56	Aa	94/94 (100%)	91 (97%)	3 (3%)	39	74
57	Ab	72/72 (100%)	72 (100%)	0	100	100
58	AD	192/192 (100%)	189 (98%)	3 (2%)	62	86
59	Ae	47/47 (100%)	45 (96%)	2 (4%)	29	66
60	Af	70/70 (100%)	69 (99%)	1 (1%)	67	88
61	AJ	161/161 (100%)	161 (100%)	0	100	100
62	AE	220/220 (100%)	215 (98%)	5 (2%)	50	80
63	AC	188/188 (100%)	185 (98%)	3 (2%)	62	86
64	AG	200/200 (100%)	197 (98%)	3 (2%)	65	87
65	AH	175/175 (100%)	171 (98%)	4 (2%)	50	80
66	AI	175/175 (100%)	172 (98%)	3 (2%)	60	85
67	AQ	122/122 (100%)	119 (98%)	3 (2%)	47	79
68	Cz	190/190 (100%)	185 (97%)	5 (3%)	46	78
71	AW	113/113 (100%)	112 (99%)	1 (1%)	78	92
72	AT	104/104 (100%)	100 (96%)	4 (4%)	33	69
73	AK	81/81 (100%)	81 (100%)	0	100	100
74	AF	157/157 (100%)	150 (96%)	7 (4%)	27	64
75	Ac	54/54 (100%)	51 (94%)	3 (6%)	21	56
76	CU	92/92 (100%)	91 (99%)	1 (1%)	73	90
77	Cj	74/74 (100%)	74 (100%)	0	100	100

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
78	CW	54/54 (100%)	53 (98%)	1 (2%)	57	84
79	Cg	95/95 (100%)	88 (93%)	7 (7%)	13	44
80	Cd	99/99 (100%)	93 (94%)	6 (6%)	18	53
81	AS	122/122 (100%)	121 (99%)	1 (1%)	81	93
All	All	10116/10117 (100%)	9913 (98%)	203 (2%)	57	83

All (203) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	CL	12	HIS
2	CL	58	VAL
2	CL	125	LEU
2	CL	137	GLU
2	CL	164	VAL
3	CV	48	ARG
3	CV	131	ARG
4	CM	54	ASN
4	CM	150	ARG
5	Ca	144	VAL
6	CN	23	LEU
6	CN	64	ILE
6	CN	114	ARG
6	CN	134	LEU
6	CN	155	VAL
8	CD	12	TYR
8	CD	155	THR
8	CD	158	ARG
9	CQ	85	THR
9	CQ	97	LYS
9	CQ	110	ARG
9	CQ	156	PRO
9	CQ	163	THR
10	CR	47	ASP
10	CR	176	ARG
10	CR	180	LYS
11	CA	177	LYS
11	CA	190	LYS
11	CA	191	VAL
12	CS	17	LEU
12	CS	29	LYS
12	CS	125	GLN

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
12	CS	174	THR
13	CT	4	SER
13	CT	80	VAL
14	CP	57	CYS
14	CP	82	ARG
14	CP	116	HIS
14	CP	129	THR
14	CP	148	VAL
15	CX	169	ARG
15	CX	189	ARG
15	CX	196	ASN
16	CY	55	VAL
16	CY	70	VAL
16	CY	79	VAL
16	CY	104	VAL
18	Cr	42	TYR
18	Cr	106	TYR
19	Ch	58	TYR
19	Ch	122	LYS
20	Cb	43	GLN
20	Cb	53	ARG
21	CB	1	MET
21	CB	26	ARG
21	CB	207	VAL
21	CB	232	THR
21	CB	268	ARG
21	CB	297	LYS
21	CB	323	TYR
22	CF	163	VAL
22	CF	247	LEU
23	Cc	92	CYS
24	Ce	2	THR
25	Cf	60	LYS
25	Cf	95	VAL
25	Cf	111	LYS
25	Cf	131	VAL
27	Ck	40	ARG
29	CC	45	GLN
29	CC	98	MET
29	CC	100	ARG
29	CC	103	ARG
29	CC	122	GLN

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
29	CC	235	VAL
29	CC	278	LYS
29	CC	311	ARG
29	CC	323	THR
29	CC	324	ASN
29	CC	327	GLN
29	CC	359	LYS
30	Cm	103	LEU
30	Cm	120	ASN
32	Cp	16	THR
32	Cp	17	ARG
32	Cp	52	VAL
32	Cp	54	ILE
32	Cp	59	ARG
33	Co	57	ARG
34	CJ	68	ARG
35	CH	1	MET
35	CH	165	VAL
36	CE	25	TYR
36	CE	41	ARG
36	CE	73	THR
36	CE	78	ARG
36	CE	79	PRO
36	CE	95	LEU
36	CE	193	VAL
37	CG	56	LEU
37	CG	88	PHE
37	CG	135	LYS
41	Ag	6	GLN
41	Ag	59	ARG
41	Ag	97	LYS
41	Ag	100	ARG
41	Ag	119	ARG
41	Ag	179	ASN
41	Ag	216	LYS
41	Ag	271	LEU
42	AU	101	LYS
43	AO	47	LEU
44	AX	39	ASN
44	AX	142	ARG
45	AM	22	ASN
45	AM	30	LYS

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
45	AM	84	ILE
45	AM	103	LYS
45	AM	109	LYS
47	AN	38	LYS
48	AL	66	ARG
49	AR	23	ARG
49	AR	78	ARG
50	AP	46	ARG
51	AB	82	ARG
51	AB	131	LYS
51	AB	151	GLN
52	AA	92	LYS
52	AA	174	MET
52	AA	184	ARG
52	AA	191	ARG
53	AV	71	ARG
54	AY	101	LYS
54	AY	102	LYS
54	AY	103	GLN
54	AY	108	ARG
55	AZ	112	THR
56	Aa	11	ASN
56	Aa	13	HIS
56	Aa	73	TYR
58	AD	47	ARG
58	AD	126	ARG
58	AD	177	VAL
59	Ae	90	LYS
59	Ae	124	ARG
60	Af	99	LYS
62	AE	9	LEU
62	AE	136	VAL
62	AE	174	LYS
62	AE	200	ARG
62	AE	240	LYS
63	AC	104	ARG
63	AC	150	ARG
63	AC	159	LYS
64	AG	67	VAL
64	AG	85	ARG
64	AG	178	GLN
65	AH	6	LYS

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
65	AH	72	LYS
65	AH	79	ARG
65	AH	93	ILE
66	AI	129	HIS
66	AI	140	THR
66	AI	141	LYS
67	AQ	6	ARG
67	AQ	52	LYS
67	AQ	72	VAL
68	Cz	7	ARG
68	Cz	48	ARG
68	Cz	60	ARG
68	Cz	157	PHE
68	Cz	215	ARG
71	AW	105	THR
72	AT	16	LYS
72	AT	22	LEU
72	AT	77	LYS
72	AT	93	CYS
74	AF	48	ARG
74	AF	64	TYR
74	AF	153	ARG
74	AF	161	ARG
74	AF	185	ARG
74	AF	201	ASP
74	AF	227	LYS
75	Ac	16	ARG
75	Ac	37	GLN
75	Ac	47	ARG
76	CU	213	LYS
78	CW	52	THR
79	Cg	2	VAL
79	Cg	3	GLN
79	Cg	22	ILE
79	Cg	32	TYR
79	Cg	33	GLN
79	Cg	58	ARG
79	Cg	75	THR
80	Cd	17	VAL
80	Cd	24	ILE
80	Cd	30	VAL
80	Cd	83	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
80	Cd	91	ASP
80	Cd	94	ASP
81	AS	118	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (10) such sidechains are listed below:

Mol	Chain	Res	Type
14	CP	115	HIS
26	Ci	15	HIS
29	CC	327	GLN
55	AZ	46	GLN
66	AI	64	ASN
79	Cg	3	GLN
81	AS	42	ASN
81	AS	73	ASN
81	AS	87	GLN
81	AS	135	HIS

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
38	A9	29/30 (96%)	8 (27%)	1 (3%)
39	A7	119/120 (99%)	30 (25%)	1 (0%)
40	A8	122/123 (99%)	45 (36%)	1 (0%)
69	A5	3561/3703 (96%)	1353 (37%)	81 (2%)
70	B2	1792/1936 (92%)	630 (35%)	32 (1%)
All	All	5623/5912 (95%)	2066 (36%)	116 (2%)

All (2066) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
38	A9	4	U
38	A9	9	C
38	A9	20	U
38	A9	21	G
38	A9	22	A
38	A9	25	G
38	A9	26	U
38	A9	30	A
39	A7	7	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	A7	17	C
39	A7	22	A
39	A7	25	A
39	A7	27	A
39	A7	33	U
39	A7	39	C
39	A7	40	C
39	A7	41	G
39	A7	42	A
39	A7	47	C
39	A7	50	A
39	A7	52	U
39	A7	53	U
39	A7	54	A
39	A7	58	A
39	A7	60	C
39	A7	64	G
39	A7	70	G
39	A7	74	A
39	A7	89	G
39	A7	90	A
39	A7	93	G
39	A7	97	G
39	A7	100	A
39	A7	108	G
39	A7	109	U
39	A7	110	G
39	A7	117	G
39	A7	120	U
40	A8	2	A
40	A8	6	U
40	A8	13	U
40	A8	15	G
40	A8	20	C
40	A8	22	C
40	A8	23	G
40	A8	32	G
40	A8	33	U
40	A8	34	C
40	A8	37	U
40	A8	38	G
40	A8	45	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	A8	47	A
40	A8	50	A
40	A8	56	U
40	A8	57	G
40	A8	59	G
40	A8	61	C
40	A8	62	A
40	A8	70	A
40	A8	73	U
40	A8	74	G
40	A8	75	C
40	A8	78	G
40	A8	79	A
40	A8	80	C
40	A8	81	A
40	A8	82	C
40	A8	83	A
40	A8	84	U
40	A8	89	A
40	A8	92	G
40	A8	94	C
40	A8	97	U
40	A8	102	A
40	A8	103	C
40	A8	109	U
40	A8	110	C
40	A8	111	G
40	A8	113	A
40	A8	118	A
40	A8	119	U
40	A8	122	U
40	A8	123	G
69	A5	2	U
69	A5	3	A
69	A5	4	U
69	A5	6	U
69	A5	7	A
69	A5	9	A
69	A5	11	C
69	A5	13	U
69	A5	14	C
69	A5	15	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	17	C
69	A5	18	U
69	A5	19	C
69	A5	22	A
69	A5	23	U
69	A5	25	G
69	A5	26	G
69	A5	29	U
69	A5	30	A
69	A5	35	C
69	A5	36	U
69	A5	44	A
69	A5	45	G
69	A5	46	C
69	A5	47	A
69	A5	48	U
69	A5	53	A
69	A5	54	U
69	A5	59	G
69	A5	61	A
69	A5	62	G
69	A5	63	G
69	A5	64	A
69	A5	69	A
69	A5	70	A
69	A5	72	C
69	A5	73	U
69	A5	77	A
69	A5	78	A
69	A5	79	G
69	A5	80	G
69	A5	82	U
69	A5	90	G
69	A5	94	C
69	A5	96	G
69	A5	98	G
69	A5	103	A
69	A5	110	A
69	A5	112	C
69	A5	113	A
69	A5	114	G
69	A5	117	C

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	121	A
69	A5	122	C
69	A5	123	U
69	A5	124	A
69	A5	125	A
69	A5	127	U
69	A5	128	C
69	A5	136	C
69	A5	137	U
69	A5	138	A
69	A5	139	U
69	A5	141	U
69	A5	142	G
69	A5	148	U
69	A5	149	G
69	A5	154	A
69	A5	156	G
69	A5	157	C
69	A5	158	A
69	A5	162	U
69	A5	163	A
69	A5	164	U
69	A5	165	G
69	A5	166	G
69	A5	169	C
69	A5	171	U
69	A5	174	A
69	A5	175	U
69	A5	176	A
69	A5	178	U
69	A5	182	G
69	A5	183	U
69	A5	187	A
69	A5	188	G
69	A5	189	A
69	A5	190	A
69	A5	191	A
69	A5	197	G
69	A5	198	A
69	A5	199	U
69	A5	201	U
69	A5	202	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	205	U
69	A5	206	C
69	A5	207	C
69	A5	209	U
69	A5	210	C
69	A5	212	U
69	A5	213	A
69	A5	216	U
69	A5	225	U
69	A5	226	U
69	A5	227	A
69	A5	228	C
69	A5	229	C
69	A5	232	U
69	A5	233	A
69	A5	240	G
69	A5	241	C
69	A5	242	C
69	A5	244	G
69	A5	253	A
69	A5	261	U
69	A5	262	G
69	A5	269	A
69	A5	272	U
69	A5	273	G
69	A5	274	A
69	A5	276	G
69	A5	277	U
69	A5	279	U
69	A5	285	G
69	A5	287	G
69	A5	288	U
69	A5	289	C
69	A5	294	U
69	A5	297	U
69	A5	298	U
69	A5	301	U
69	A5	302	A
69	A5	303	G
69	A5	304	U
69	A5	308	G
69	A5	313	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	316	U
69	A5	317	G
69	A5	323	U
69	A5	329	C
69	A5	333	C
69	A5	335	A
69	A5	341	A
69	A5	347	A
69	A5	354	A
69	A5	355	G
69	A5	367	A
69	A5	368	C
69	A5	370	A
69	A5	388	U
69	A5	394	G
69	A5	396	A
69	A5	405	A
69	A5	409	A
69	A5	413	A
69	A5	415	A
69	A5	416	C
69	A5	417	A
69	A5	420	A
69	A5	421	C
69	A5	422	G
69	A5	425	A
69	A5	428	C
69	A5	429	U
69	A5	430	G
69	A5	439	U
69	A5	440	U
69	A5	441	A
69	A5	445	C
69	A5	446	C
69	A5	458	A
69	A5	459	U
69	A5	460	A
69	A5	461	U
69	A5	462	C
69	A5	463	C
69	A5	464	G
69	A5	465	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	466	U
69	A5	467	A
69	A5	468	U
69	A5	475	U
69	A5	476	U
69	A5	478	A
69	A5	479	U
69	A5	483	U
69	A5	495	A
69	A5	499	A
69	A5	500	A
69	A5	508	U
69	A5	509	A
69	A5	519	U
69	A5	520	G
69	A5	521	U
69	A5	522	G
69	A5	523	C
69	A5	524	A
69	A5	525	U
69	A5	526	U
69	A5	527	U
69	A5	533	A
69	A5	534	U
69	A5	535	A
69	A5	536	U
69	A5	537	A
69	A5	539	G
69	A5	540	G
69	A5	541	A
69	A5	548	A
69	A5	555	U
69	A5	558	C
69	A5	559	A
69	A5	560	U
69	A5	566	A
69	A5	567	A
69	A5	568	A
69	A5	569	U
69	A5	571	U
69	A5	576	U
69	A5	577	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	578	A
69	A5	580	A
69	A5	581	U
69	A5	582	A
69	A5	585	A
69	A5	586	C
69	A5	588	U
69	A5	590	U
69	A5	592	G
69	A5	593	U
69	A5	616	A
69	A5	618	U
69	A5	620	U
69	A5	621	A
69	A5	622	A
69	A5	623	C
69	A5	625	C
69	A5	629	A
69	A5	630	U
69	A5	631	A
69	A5	632	A
69	A5	633	A
69	A5	634	U
69	A5	635	G
69	A5	636	U
69	A5	637	U
69	A5	640	U
69	A5	641	A
69	A5	642	A
69	A5	643	U
69	A5	646	G
69	A5	652	G
69	A5	653	U
69	A5	659	U
69	A5	665	U
69	A5	666	A
69	A5	667	U
69	A5	668	A
69	A5	669	U
69	A5	670	G
69	A5	671	A
69	A5	672	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	673	U
69	A5	674	A
69	A5	679	G
69	A5	680	C
69	A5	681	G
69	A5	682	U
69	A5	683	U
69	A5	689	U
69	A5	690	U
69	A5	692	G
69	A5	693	G
69	A5	711	A
69	A5	717	A
69	A5	719	U
69	A5	726	U
69	A5	729	G
69	A5	731	U
69	A5	732	U
69	A5	745	U
69	A5	746	G
69	A5	747	U
69	A5	748	A
69	A5	749	U
69	A5	750	G
69	A5	751	A
69	A5	752	U
69	A5	753	U
69	A5	754	A
69	A5	755	A
69	A5	761	C
69	A5	762	G
69	A5	763	A
69	A5	764	A
69	A5	765	A
69	A5	766	G
69	A5	767	A
69	A5	774	A
69	A5	775	U
69	A5	776	A
69	A5	777	C
69	A5	783	G
69	A5	786	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	789	G
69	A5	797	A
69	A5	799	A
69	A5	806	A
69	A5	810	A
69	A5	812	U
69	A5	824	G
69	A5	827	A
69	A5	831	A
69	A5	832	U
69	A5	833	U
69	A5	834	G
69	A5	838	U
69	A5	840	U
69	A5	841	A
69	A5	858	U
69	A5	862	U
69	A5	863	U
69	A5	865	A
69	A5	866	C
69	A5	868	A
69	A5	869	A
69	A5	870	U
69	A5	872	A
69	A5	873	U
69	A5	874	G
69	A5	879	U
69	A5	880	A
69	A5	883	U
69	A5	884	U
69	A5	885	U
69	A5	887	U
69	A5	888	A
69	A5	891	U
69	A5	892	A
69	A5	893	U
69	A5	894	U
69	A5	895	U
69	A5	896	A
69	A5	898	A
69	A5	899	G
69	A5	901	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	905	U
69	A5	909	A
69	A5	913	U
69	A5	917	G
69	A5	921	C
69	A5	922	G
69	A5	926	U
69	A5	927	A
69	A5	928	U
69	A5	929	A
69	A5	930	U
69	A5	932	G
69	A5	933	U
69	A5	936	U
69	A5	937	G
69	A5	942	A
69	A5	963	G
69	A5	964	C
69	A5	968	U
69	A5	969	A
69	A5	975	A
69	A5	981	C
69	A5	984	U
69	A5	985	G
69	A5	992	U
69	A5	998	G
69	A5	1001	A
69	A5	1005	G
69	A5	1006	A
69	A5	1007	A
69	A5	1008	A
69	A5	1009	G
69	A5	1010	A
69	A5	1016	A
69	A5	1017	A
69	A5	1028	U
69	A5	1030	A
69	A5	1032	G
69	A5	1043	G
69	A5	1049	C
69	A5	1053	G
69	A5	1054	A

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1057	G
69	A5	1058	A
69	A5	1061	A
69	A5	1064	G
69	A5	1069	A
69	A5	1071	U
69	A5	1074	U
69	A5	1079	U
69	A5	1080	G
69	A5	1084	A
69	A5	1087	G
69	A5	1089	U
69	A5	1094	A
69	A5	1096	A
69	A5	1101	A
69	A5	1107	G
69	A5	1108	G
69	A5	1114	A
69	A5	1116	G
69	A5	1117	A
69	A5	1118	C
69	A5	1120	A
69	A5	1121	A
69	A5	1123	C
69	A5	1124	G
69	A5	1126	A
69	A5	1132	U
69	A5	1137	G
69	A5	1138	C
69	A5	1144	C
69	A5	1145	C
69	A5	1159	C
69	A5	1160	U
69	A5	1162	A
69	A5	1163	G
69	A5	1183	U
69	A5	1192	A
69	A5	1193	A
69	A5	1194	A
69	A5	1195	U
69	A5	1197	A
69	A5	1198	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1199	C
69	A5	1206	G
69	A5	1207	G
69	A5	1212	G
69	A5	1213	C
69	A5	1214	G
69	A5	1219	A
69	A5	1220	U
69	A5	1222	A
69	A5	1223	G
69	A5	1226	G
69	A5	1227	C
69	A5	1228	C
69	A5	1229	U
69	A5	1231	A
69	A5	1232	G
69	A5	1233	G
69	A5	1234	G
69	A5	1240	A
69	A5	1241	C
69	A5	1242	G
69	A5	1243	A
69	A5	1245	C
69	A5	1246	U
69	A5	1250	C
69	A5	1253	A
69	A5	1258	C
69	A5	1259	A
69	A5	1260	A
69	A5	1264	U
69	A5	1265	U
69	A5	1270	G
69	A5	1276	G
69	A5	1277	A
69	A5	1279	C
69	A5	1282	U
69	A5	1284	A
69	A5	1285	C
69	A5	1288	U
69	A5	1289	C
69	A5	1290	U
69	A5	1291	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1292	G
69	A5	1293	A
69	A5	1294	U
69	A5	1295	A
69	A5	1296	U
69	A5	1297	G
69	A5	1299	A
69	A5	1303	C
69	A5	1304	A
69	A5	1305	A
69	A5	1307	G
69	A5	1308	U
69	A5	1309	U
69	A5	1310	A
69	A5	1311	U
69	A5	1315	A
69	A5	1316	U
69	A5	1317	A
69	A5	1318	A
69	A5	1321	G
69	A5	1324	C
69	A5	1326	A
69	A5	1330	G
69	A5	1331	G
69	A5	1341	G
69	A5	1342	U
69	A5	1345	G
69	A5	1349	A
69	A5	1350	A
69	A5	1357	C
69	A5	1358	U
69	A5	1359	G
69	A5	1360	U
69	A5	1367	A
69	A5	1368	A
69	A5	1369	C
69	A5	1373	A
69	A5	1374	C
69	A5	1376	U
69	A5	1383	A
69	A5	1384	C
69	A5	1389	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1391	A
69	A5	1393	A
69	A5	1394	U
69	A5	1395	U
69	A5	1396	A
69	A5	1399	A
69	A5	1403	C
69	A5	1404	A
69	A5	1405	U
69	A5	1406	G
69	A5	1407	C
69	A5	1408	A
69	A5	1411	U
69	A5	1416	U
69	A5	1422	G
69	A5	1423	C
69	A5	1424	G
69	A5	1425	U
69	A5	1427	G
69	A5	1435	A
69	A5	1436	A
69	A5	1437	A
69	A5	1438	A
69	A5	1442	C
69	A5	1447	C
69	A5	1448	G
69	A5	1449	G
69	A5	1450	U
69	A5	1451	G
69	A5	1452	A
69	A5	1453	U
69	A5	1455	A
69	A5	1456	U
69	A5	1457	G
69	A5	1458	G
69	A5	1459	A
69	A5	1460	A
69	A5	1461	G
69	A5	1462	U
69	A5	1471	G
69	A5	1472	C
69	A5	1473	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1474	A
69	A5	1475	A
69	A5	1477	G
69	A5	1478	A
69	A5	1479	G
69	A5	1480	U
69	A5	1481	G
69	A5	1482	U
69	A5	1483	G
69	A5	1484	U
69	A5	1485	A
69	A5	1486	A
69	A5	1487	C
69	A5	1488	A
69	A5	1489	A
69	A5	1493	A
69	A5	1498	C
69	A5	1501	A
69	A5	1502	A
69	A5	1505	A
69	A5	1509	A
69	A5	1510	G
69	A5	1520	U
69	A5	1522	G
69	A5	1524	U
69	A5	1531	U
69	A5	1532	A
69	A5	1540	U
69	A5	1546	U
69	A5	1552	A
69	A5	1558	A
69	A5	1564	G
69	A5	1566	U
69	A5	1567	G
69	A5	1568	A
69	A5	1573	U
69	A5	1576	U
69	A5	1578	C
69	A5	1579	U
69	A5	1580	U
69	A5	1581	G
69	A5	1590	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1592	U
69	A5	1593	U
69	A5	1594	U
69	A5	1595	G
69	A5	1596	A
69	A5	1606	G
69	A5	1607	A
69	A5	1619	C
69	A5	1621	A
69	A5	1626	A
69	A5	1627	U
69	A5	1628	G
69	A5	1629	C
69	A5	1632	A
69	A5	1633	G
69	A5	1641	U
69	A5	1643	G
69	A5	1648	A
69	A5	1649	G
69	A5	1658	G
69	A5	1659	A
69	A5	1669	G
69	A5	1671	U
69	A5	1672	A
69	A5	1675	G
69	A5	1678	C
69	A5	1687	U
69	A5	1688	A
69	A5	1689	G
69	A5	1690	U
69	A5	1692	G
69	A5	1697	U
69	A5	1698	A
69	A5	1699	A
69	A5	1712	C
69	A5	1713	U
69	A5	1714	U
69	A5	1723	G
69	A5	1724	A
69	A5	1727	U
69	A5	1728	G
69	A5	1730	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1731	G
69	A5	1736	G
69	A5	1745	G
69	A5	1746	A
69	A5	1750	G
69	A5	1751	U
69	A5	1754	U
69	A5	1755	U
69	A5	1763	A
69	A5	1765	U
69	A5	1766	U
69	A5	1769	U
69	A5	1774	C
69	A5	1776	U
69	A5	1778	A
69	A5	1779	G
69	A5	1782	C
69	A5	1784	A
69	A5	1785	G
69	A5	1786	G
69	A5	1792	G
69	A5	1793	C
69	A5	1794	G
69	A5	1795	A
69	A5	1796	A
69	A5	1797	A
69	A5	1798	A
69	A5	1799	U
69	A5	1800	U
69	A5	1801	U
69	A5	1802	U
69	A5	1803	C
69	A5	1804	A
69	A5	1807	U
69	A5	1808	A
69	A5	1809	A
69	A5	1811	A
69	A5	1812	C
69	A5	1813	A
69	A5	1860	A
69	A5	1861	A
69	A5	1863	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1864	U
69	A5	1865	U
69	A5	1866	G
69	A5	1867	A
69	A5	1871	A
69	A5	1872	A
69	A5	1873	A
69	A5	1874	G
69	A5	1877	A
69	A5	1885	U
69	A5	1889	A
69	A5	1892	C
69	A5	1908	A
69	A5	1910	C
69	A5	1911	C
69	A5	1913	U
69	A5	1914	U
69	A5	1918	U
69	A5	1923	A
69	A5	1924	A
69	A5	1925	U
69	A5	1926	A
69	A5	1927	U
69	A5	1931	C
69	A5	1934	C
69	A5	1935	G
69	A5	1937	G
69	A5	1944	C
69	A5	1948	C
69	A5	1951	C
69	A5	1952	A
69	A5	1954	G
69	A5	1956	A
69	A5	1957	C
69	A5	1958	G
69	A5	1959	A
69	A5	1960	C
69	A5	1961	C
69	A5	1970	G
69	A5	1973	G
69	A5	1986	G
69	A5	1997	C

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1998	U
69	A5	2004	G
69	A5	2005	U
69	A5	2013	C
69	A5	2014	C
69	A5	2015	G
69	A5	2016	U
69	A5	2017	A
69	A5	2030	U
69	A5	2035	C
69	A5	2037	C
69	A5	2038	A
69	A5	2052	G
69	A5	2053	A
69	A5	2054	U
69	A5	2055	G
69	A5	2057	G
69	A5	2061	G
69	A5	2062	A
69	A5	2063	A
69	A5	2064	G
69	A5	2065	A
69	A5	2066	G
69	A5	2070	G
69	A5	2075	A
69	A5	2076	U
69	A5	2077	A
69	A5	2078	C
69	A5	2079	U
69	A5	2082	U
69	A5	2084	U
69	A5	2088	G
69	A5	2091	A
69	A5	2092	U
69	A5	2093	U
69	A5	2094	U
69	A5	2103	G
69	A5	2104	A
69	A5	2105	C
69	A5	2106	C
69	A5	2110	A
69	A5	2112	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	2122	G
69	A5	2125	G
69	A5	2126	A
69	A5	2127	C
69	A5	2128	A
69	A5	2129	C
69	A5	2130	G
69	A5	2131	C
69	A5	2132	A
69	A5	2133	A
69	A5	2134	A
69	A5	2135	C
69	A5	2136	U
69	A5	2137	U
69	A5	2140	C
69	A5	2148	C
69	A5	2151	A
69	A5	2155	A
69	A5	2156	U
69	A5	2157	A
69	A5	2158	U
69	A5	2166	U
69	A5	2167	G
69	A5	2170	C
69	A5	2171	U
69	A5	2174	A
69	A5	2183	A
69	A5	2194	G
69	A5	2195	A
69	A5	2196	U
69	A5	2202	A
69	A5	2205	G
69	A5	2206	U
69	A5	2212	A
69	A5	2216	A
69	A5	2222	G
69	A5	2224	A
69	A5	2230	G
69	A5	2239	C
69	A5	2241	U
69	A5	2242	C
69	A5	2247	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	2258	U
69	A5	2259	C
69	A5	2267	U
69	A5	2268	G
69	A5	2269	A
69	A5	2270	G
69	A5	2272	U
69	A5	2273	A
69	A5	2274	G
69	A5	2277	G
69	A5	2462	U
69	A5	2464	A
69	A5	2467	A
69	A5	2469	U
69	A5	2470	U
69	A5	2471	A
69	A5	2472	A
69	A5	2475	A
69	A5	2479	A
69	A5	2480	U
69	A5	2483	A
69	A5	2490	G
69	A5	2491	C
69	A5	2493	C
69	A5	2499	U
69	A5	2500	G
69	A5	2501	G
69	A5	2505	A
69	A5	2510	A
69	A5	2513	G
69	A5	2519	U
69	A5	2523	A
69	A5	2525	C
69	A5	2528	A
69	A5	2529	G
69	A5	2534	G
69	A5	2537	A
69	A5	2538	U
69	A5	2545	A
69	A5	2546	G
69	A5	2547	C
69	A5	2548	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	2549	G
69	A5	2554	U
69	A5	2555	G
69	A5	2557	C
69	A5	2562	U
69	A5	2565	G
69	A5	2566	A
69	A5	2570	C
69	A5	2572	G
69	A5	2575	C
69	A5	2583	U
69	A5	2584	G
69	A5	2585	A
69	A5	2586	A
69	A5	2587	U
69	A5	2588	G
69	A5	2601	A
69	A5	2603	U
69	A5	2609	U
69	A5	2610	A
69	A5	2622	A
69	A5	2626	C
69	A5	2627	G
69	A5	2633	A
69	A5	2634	A
69	A5	2635	C
69	A5	2640	A
69	A5	2641	C
69	A5	2643	C
69	A5	2646	U
69	A5	2650	G
69	A5	2651	G
69	A5	2654	G
69	A5	2659	A
69	A5	2660	U
69	A5	2663	C
69	A5	2665	C
69	A5	2666	G
69	A5	2676	U
69	A5	2681	A
69	A5	2683	G
69	A5	2684	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	2685	G
69	A5	2686	C
69	A5	2688	U
69	A5	2691	A
69	A5	2693	G
69	A5	2701	G
69	A5	2708	C
69	A5	2713	G
69	A5	2714	U
69	A5	2725	U
69	A5	2727	U
69	A5	2733	G
69	A5	2741	A
69	A5	2743	C
69	A5	2744	C
69	A5	2745	A
69	A5	2750	A
69	A5	2751	A
69	A5	2752	C
69	A5	2753	G
69	A5	2754	G
69	A5	2760	G
69	A5	2768	A
69	A5	2771	G
69	A5	2775	A
69	A5	2779	A
69	A5	2780	A
69	A5	2781	G
69	A5	2789	U
69	A5	2792	G
69	A5	2796	G
69	A5	2797	A
69	A5	2803	A
69	A5	2813	G
69	A5	2815	A
69	A5	2816	A
69	A5	2817	G
69	A5	2819	A
69	A5	2821	A
69	A5	2822	C
69	A5	2825	A
69	A5	2826	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	2828	A
69	A5	2831	U
69	A5	2832	G
69	A5	2834	A
69	A5	2836	A
69	A5	2837	A
69	A5	2839	A
69	A5	2840	A
69	A5	2842	U
69	A5	2844	G
69	A5	2845	G
69	A5	2847	G
69	A5	2848	A
69	A5	2869	U
69	A5	2870	C
69	A5	2871	G
69	A5	2873	C
69	A5	2876	U
69	A5	2877	G
69	A5	2880	A
69	A5	2881	U
69	A5	2882	A
69	A5	2883	C
69	A5	2884	C
69	A5	2886	C
69	A5	2887	U
69	A5	2888	A
69	A5	2891	C
69	A5	2893	U
69	A5	2895	U
69	A5	2896	U
69	A5	2898	U
69	A5	2899	U
69	A5	2900	U
69	A5	2901	C
69	A5	2902	C
69	A5	2908	U
69	A5	2916	U
69	A5	2917	A
69	A5	2918	A
69	A5	2922	G
69	A5	2923	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	2925	C
69	A5	2931	U
69	A5	2932	C
69	A5	2989	G
69	A5	2990	C
69	A5	2991	A
69	A5	2992	A
69	A5	2994	C
69	A5	2995	U
69	A5	2997	C
69	A5	2998	U
69	A5	3000	G
69	A5	3003	C
69	A5	3004	A
69	A5	3005	A
69	A5	3008	U
69	A5	3011	C
69	A5	3014	G
69	A5	3015	A
69	A5	3016	G
69	A5	3101	A
69	A5	3103	U
69	A5	3104	C
69	A5	3105	A
69	A5	3116	A
69	A5	3117	A
69	A5	3118	U
69	A5	3119	U
69	A5	3123	G
69	A5	3125	A
69	A5	3126	C
69	A5	3128	U
69	A5	3129	U
69	A5	3132	C
69	A5	3138	G
69	A5	3139	G
69	A5	3140	G
69	A5	3146	G
69	A5	3147	A
69	A5	3158	A
69	A5	3169	A
69	A5	3170	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3173	U
69	A5	3174	A
69	A5	3183	G
69	A5	3184	U
69	A5	3185	C
69	A5	3188	A
69	A5	3189	A
69	A5	3190	G
69	A5	3191	G
69	A5	3204	G
69	A5	3209	G
69	A5	3211	A
69	A5	3212	A
69	A5	3213	C
69	A5	3219	A
69	A5	3220	U
69	A5	3221	A
69	A5	3223	A
69	A5	3227	A
69	A5	3228	A
69	A5	3229	A
69	A5	3233	C
69	A5	3235	A
69	A5	3236	A
69	A5	3241	G
69	A5	3244	U
69	A5	3245	U
69	A5	3246	G
69	A5	3247	A
69	A5	3248	U
69	A5	3252	G
69	A5	3258	C
69	A5	3259	A
69	A5	3260	G
69	A5	3261	U
69	A5	3266	A
69	A5	3270	G
69	A5	3272	A
69	A5	3278	A
69	A5	3280	A
69	A5	3281	G
69	A5	3282	C

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3283	U
69	A5	3284	C
69	A5	3285	G
69	A5	3287	C
69	A5	3294	A
69	A5	3298	U
69	A5	3299	U
69	A5	3300	U
69	A5	3303	G
69	A5	3304	U
69	A5	3305	U
69	A5	3306	U
69	A5	3308	A
69	A5	3309	A
69	A5	3311	A
69	A5	3319	A
69	A5	3321	A
69	A5	3324	A
69	A5	3326	G
69	A5	3328	G
69	A5	3329	U
69	A5	3331	A
69	A5	3332	G
69	A5	3333	A
69	A5	3334	A
69	A5	3337	G
69	A5	3341	C
69	A5	3342	C
69	A5	3345	A
69	A5	3346	G
69	A5	3348	G
69	A5	3349	A
69	A5	3350	U
69	A5	3359	U
69	A5	3360	G
69	A5	3361	U
69	A5	3373	G
69	A5	3374	U
69	A5	3375	U
69	A5	3377	A
69	A5	3378	U
69	A5	3379	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3381	C
69	A5	3392	U
69	A5	3395	G
69	A5	3397	U
69	A5	3399	C
69	A5	3401	U
69	A5	3403	G
69	A5	3404	A
69	A5	3405	U
69	A5	3408	C
69	A5	3418	U
69	A5	3419	A
69	A5	3426	U
69	A5	3430	G
69	A5	3431	C
69	A5	3436	U
69	A5	3443	A
69	A5	3448	U
69	A5	3455	U
69	A5	3456	U
69	A5	3457	C
69	A5	3465	C
69	A5	3466	A
69	A5	3467	A
69	A5	3468	G
69	A5	3470	G
69	A5	3473	C
69	A5	3478	G
69	A5	3482	G
69	A5	3486	U
69	A5	3487	A
69	A5	3488	G
69	A5	3490	C
69	A5	3496	U
69	A5	3499	G
69	A5	3502	A
69	A5	3509	U
69	A5	3510	U
69	A5	3511	U
69	A5	3514	C
69	A5	3515	C
69	A5	3516	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3518	A
69	A5	3520	U
69	A5	3521	A
69	A5	3523	U
69	A5	3527	A
69	A5	3529	A
69	A5	3530	A
69	A5	3531	C
69	A5	3532	G
69	A5	3535	G
69	A5	3540	G
69	A5	3541	A
69	A5	3546	A
69	A5	3547	U
69	A5	3549	C
69	A5	3556	A
69	A5	3558	U
69	A5	3563	G
69	A5	3568	A
69	A5	3569	C
69	A5	3581	G
69	A5	3584	C
69	A5	3585	A
69	A5	3591	A
69	A5	3592	C
69	A5	3593	A
69	A5	3594	A
69	A5	3599	U
69	A5	3604	G
69	A5	3608	G
69	A5	3609	A
69	A5	3613	G
69	A5	3614	U
69	A5	3621	A
69	A5	3626	A
69	A5	3627	C
69	A5	3628	G
69	A5	3629	U
69	A5	3633	U
69	A5	3635	G
69	A5	3638	U
69	A5	3649	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3650	G
69	A5	3654	C
69	A5	3656	A
69	A5	3661	C
69	A5	3664	A
69	A5	3665	U
69	A5	3671	C
69	A5	3672	U
69	A5	3675	A
69	A5	3676	C
69	A5	3677	U
69	A5	3678	G
69	A5	3684	A
69	A5	3685	U
69	A5	3686	A
69	A5	3687	A
69	A5	3688	A
69	A5	3689	U
69	A5	3690	A
69	A5	3694	G
69	A5	3695	G
69	A5	3696	C
69	A5	3697	A
69	A5	3698	A
69	A5	3699	U
69	A5	3700	U
69	A5	3701	U
69	A5	3702	G
69	A5	3705	U
69	A5	3708	U
69	A5	3711	G
69	A5	3712	G
69	A5	3713	C
69	A5	3715	U
69	A5	3718	A
69	A5	3719	A
69	A5	3720	A
69	A5	3721	C
69	A5	3722	C
69	A5	3723	A
69	A5	3725	U
69	A5	3726	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3727	A
69	A5	3728	A
69	A5	3729	A
69	A5	3730	G
69	A5	3731	U
69	A5	3732	U
69	A5	3738	U
69	A5	3739	U
69	A5	3742	C
69	A5	3751	C
69	A5	3752	G
69	A5	3753	A
69	A5	3754	C
69	A5	3755	A
69	A5	3756	A
69	A5	3757	U
69	A5	3758	G
69	A5	3759	G
69	A5	3761	U
69	A5	3762	G
69	A5	3763	U
69	A5	3764	G
69	A5	3765	A
69	A5	3766	U
69	A5	3767	G
69	A5	3769	C
69	A5	3772	U
69	A5	3773	G
69	A5	3774	U
69	A5	3775	A
69	A5	3776	A
69	A5	3777	U
69	A5	3778	U
69	A5	3779	U
69	A5	3782	A
69	A5	3783	A
69	A5	3784	C
69	A5	3785	A
69	A5	3788	G
69	A5	3791	A
69	A5	3792	A
69	A5	3794	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3795	G
69	A5	3796	G
69	A5	3798	A
69	A5	3802	U
69	A5	3803	C
69	A5	3804	U
69	A5	3805	U
69	A5	3807	G
69	A5	3808	A
69	A5	3809	U
69	A5	3810	C
69	A5	3811	A
69	A5	3812	C
69	A5	3814	U
69	A5	3815	G
69	A5	3816	A
69	A5	3818	G
69	A5	3820	C
69	A5	3821	G
69	A5	3825	U
69	A5	3828	U
69	A5	3830	A
69	A5	3832	A
69	A5	3837	A
69	A5	3839	A
69	A5	3840	G
69	A5	3841	C
69	A5	3842	A
69	A5	3843	U
69	A5	3844	U
69	A5	3845	A
69	A5	3846	U
69	A5	3847	U
69	A5	3848	U
69	A5	3851	U
69	A5	3854	A
69	A5	3856	U
69	A5	3860	A
69	A5	3861	A
69	A5	3862	A
69	A5	3865	C
69	A5	3867	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	3868	G
69	A5	3869	A
69	A5	3877	G
69	A5	3878	U
69	A5	3881	A
69	A5	3887	U
69	A5	3888	U
69	A5	3891	U
69	A5	3892	A
69	A5	3894	C
69	A5	3895	A
69	A5	3896	G
69	A5	3898	C
69	A5	3903	U
69	A5	3908	U
69	A5	3915	U
69	A5	3916	U
69	A5	3919	G
69	A5	3921	A
69	A5	3922	G
69	A5	3925	G
69	A5	3926	C
69	A5	3927	C
69	A5	3929	U
69	A5	3930	A
69	A5	3932	U
69	A5	3933	G
69	A5	3935	G
69	A5	3937	U
69	A5	3942	U
69	A5	3943	G
69	A5	3949	U
69	A5	3952	C
69	A5	3955	U
69	A5	3956	U
69	A5	3957	G
69	A5	3962	A
69	A5	3963	U
69	A5	3964	G
69	A5	3967	U
69	A5	3970	A
70	B2	2	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	3	U
70	B2	5	U
70	B2	20	G
70	B2	25	U
70	B2	26	A
70	B2	35	U
70	B2	38	C
70	B2	42	G
70	B2	47	A
70	B2	48	G
70	B2	49	C
70	B2	57	G
70	B2	60	U
70	B2	63	G
70	B2	65	A
70	B2	66	C
70	B2	67	A
70	B2	68	C
70	B2	70	C
70	B2	71	G
70	B2	72	A
70	B2	74	U
70	B2	76	A
70	B2	77	A
70	B2	78	A
70	B2	79	A
70	B2	80	G
70	B2	82	G
70	B2	92	A
70	B2	99	A
70	B2	103	U
70	B2	105	U
70	B2	113	G
70	B2	114	G
70	B2	115	U
70	B2	121	A
70	B2	126	G
70	B2	127	U
70	B2	135	U
70	B2	136	A
70	B2	137	C
70	B2	138	U

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	141	G
70	B2	142	A
70	B2	143	U
70	B2	150	G
70	B2	153	A
70	B2	155	U
70	B2	156	U
70	B2	157	C
70	B2	158	U
70	B2	163	C
70	B2	166	A
70	B2	173	C
70	B2	174	A
70	B2	175	A
70	B2	177	U
70	B2	178	A
70	B2	183	A
70	B2	185	G
70	B2	187	A
70	B2	188	C
70	B2	189	C
70	B2	190	U
70	B2	191	U
70	B2	193	U
70	B2	194	G
70	B2	195	G
70	B2	196	G
70	B2	200	U
70	B2	203	G
70	B2	204	C
70	B2	214	G
70	B2	215	C
70	B2	216	U
70	B2	217	A
70	B2	218	A
70	B2	225	G
70	B2	235	G
70	B2	238	C
70	B2	243	U
70	B2	248	G
70	B2	249	U
70	B2	250	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	251	G
70	B2	252	A
70	B2	253	A
70	B2	256	C
70	B2	257	U
70	B2	258	A
70	B2	265	A
70	B2	266	U
70	B2	267	G
70	B2	270	G
70	B2	271	A
70	B2	276	A
70	B2	277	U
70	B2	279	G
70	B2	280	U
70	B2	281	C
70	B2	282	U
70	B2	283	U
70	B2	284	G
70	B2	285	U
70	B2	286	A
70	B2	287	C
70	B2	288	C
70	B2	289	G
70	B2	292	G
70	B2	293	A
70	B2	295	A
70	B2	301	U
70	B2	303	C
70	B2	304	A
70	B2	306	A
70	B2	311	U
70	B2	312	G
70	B2	319	C
70	B2	321	A
70	B2	326	U
70	B2	327	G
70	B2	329	U
70	B2	334	G
70	B2	342	G
70	B2	343	A
70	B2	348	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	355	G
70	B2	357	A
70	B2	364	A
70	B2	366	C
70	B2	379	U
70	B2	382	G
70	B2	392	A
70	B2	395	G
70	B2	405	A
70	B2	407	C
70	B2	409	G
70	B2	417	A
70	B2	421	A
70	B2	422	A
70	B2	423	G
70	B2	424	G
70	B2	428	G
70	B2	429	C
70	B2	430	A
70	B2	431	G
70	B2	439	G
70	B2	440	U
70	B2	444	U
70	B2	448	C
70	B2	449	C
70	B2	453	C
70	B2	458	C
70	B2	459	U
70	B2	464	G
70	B2	466	G
70	B2	469	A
70	B2	480	A
70	B2	481	U
70	B2	482	A
70	B2	485	A
70	B2	489	C
70	B2	499	A
70	B2	501	C
70	B2	502	C
70	B2	506	G
70	B2	508	C
70	B2	509	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	510	U
70	B2	512	U
70	B2	513	A
70	B2	514	A
70	B2	515	U
70	B2	516	U
70	B2	520	A
70	B2	521	U
70	B2	522	G
70	B2	523	A
70	B2	527	C
70	B2	535	A
70	B2	541	U
70	B2	546	A
70	B2	547	G
70	B2	548	G
70	B2	549	A
70	B2	550	C
70	B2	551	C
70	B2	552	A
70	B2	556	G
70	B2	559	G
70	B2	562	C
70	B2	564	A
70	B2	565	G
70	B2	566	U
70	B2	567	C
70	B2	573	C
70	B2	576	G
70	B2	583	C
70	B2	586	U
70	B2	587	A
70	B2	588	A
70	B2	591	C
70	B2	595	C
70	B2	596	U
70	B2	599	A
70	B2	602	A
70	B2	603	G
70	B2	614	A
70	B2	615	G
70	B2	617	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	619	U
70	B2	621	G
70	B2	627	A
70	B2	628	A
70	B2	629	A
70	B2	630	A
70	B2	631	C
70	B2	632	G
70	B2	641	U
70	B2	646	U
70	B2	647	U
70	B2	649	U
70	B2	653	U
70	B2	655	A
70	B2	656	U
70	B2	657	A
70	B2	658	C
70	B2	701	G
70	B2	705	G
70	B2	712	U
70	B2	713	A
70	B2	714	U
70	B2	715	U
70	B2	720	G
70	B2	820	G
70	B2	824	U
70	B2	825	A
70	B2	833	G
70	B2	837	A
70	B2	843	G
70	B2	847	G
70	B2	848	C
70	B2	852	A
70	B2	856	A
70	B2	857	G
70	B2	861	U
70	B2	862	C
70	B2	863	A
70	B2	865	A
70	B2	866	U
70	B2	873	A
70	B2	874	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	877	U
70	B2	878	C
70	B2	879	U
70	B2	880	G
70	B2	882	G
70	B2	895	A
70	B2	898	U
70	B2	899	A
70	B2	900	A
70	B2	901	G
70	B2	903	C
70	B2	904	C
70	B2	905	U
70	B2	906	C
70	B2	907	U
70	B2	908	G
70	B2	909	U
70	B2	911	C
70	B2	913	G
70	B2	916	U
70	B2	918	C
70	B2	925	U
70	B2	929	A
70	B2	930	G
70	B2	932	U
70	B2	935	A
70	B2	936	G
70	B2	937	A
70	B2	938	G
70	B2	939	G
70	B2	940	U
70	B2	941	A
70	B2	942	A
70	B2	943	U
70	B2	947	U
70	B2	948	A
70	B2	949	A
70	B2	950	U
70	B2	957	A
70	B2	958	G
70	B2	960	U
70	B2	963	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	973	U
70	B2	978	C
70	B2	989	G
70	B2	993	A
70	B2	999	U
70	B2	1000	G
70	B2	1001	G
70	B2	1007	C
70	B2	1008	G
70	B2	1013	A
70	B2	1019	U
70	B2	1020	U
70	B2	1021	A
70	B2	1022	A
70	B2	1026	A
70	B2	1031	A
70	B2	1032	U
70	B2	1033	U
70	B2	1042	A
70	B2	1047	U
70	B2	1053	A
70	B2	1060	A
70	B2	1070	A
70	B2	1075	U
70	B2	1079	A
70	B2	1080	A
70	B2	1090	A
70	B2	1091	U
70	B2	1092	A
70	B2	1096	C
70	B2	1098	C
70	B2	1110	A
70	B2	1112	A
70	B2	1113	A
70	B2	1115	C
70	B2	1116	G
70	B2	1126	A
70	B2	1127	G
70	B2	1137	G
70	B2	1138	U
70	B2	1139	A
70	B2	1140	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1141	C
70	B2	1145	U
70	B2	1159	C
70	B2	1161	G
70	B2	1167	U
70	B2	1168	C
70	B2	1170	G
70	B2	1178	A
70	B2	1179	A
70	B2	1183	U
70	B2	1184	U
70	B2	1185	U
70	B2	1186	U
70	B2	1187	U
70	B2	1188	G
70	B2	1201	A
70	B2	1217	U
70	B2	1226	A
70	B2	1234	G
70	B2	1236	C
70	B2	1238	G
70	B2	1239	A
70	B2	1240	A
70	B2	1243	G
70	B2	1245	A
70	B2	1246	C
70	B2	1247	C
70	B2	1248	A
70	B2	1261	C
70	B2	1262	C
70	B2	1273	U
70	B2	1274	U
70	B2	1275	U
70	B2	1278	C
70	B2	1281	A
70	B2	1282	A
70	B2	1284	A
70	B2	1285	C
70	B2	1287	G
70	B2	1288	G
70	B2	1290	A
70	B2	1300	G

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1302	U
70	B2	1304	G
70	B2	1305	A
70	B2	1307	C
70	B2	1308	A
70	B2	1309	U
70	B2	1311	A
70	B2	1313	U
70	B2	1314	G
70	B2	1315	U
70	B2	1316	G
70	B2	1319	A
70	B2	1321	A
70	B2	1322	C
70	B2	1323	A
70	B2	1327	U
70	B2	1328	G
70	B2	1329	A
70	B2	1330	U
70	B2	1331	A
70	B2	1332	G
70	B2	1333	C
70	B2	1338	U
70	B2	1339	C
70	B2	1343	A
70	B2	1344	A
70	B2	1345	U
70	B2	1346	C
70	B2	1347	U
70	B2	1348	A
70	B2	1349	U
70	B2	1351	G
70	B2	1352	G
70	B2	1353	U
70	B2	1354	G
70	B2	1356	U
70	B2	1360	G
70	B2	1371	C
70	B2	1372	U
70	B2	1373	U
70	B2	1378	C
70	B2	1381	G

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1382	G
70	B2	1383	A
70	B2	1384	G
70	B2	1386	G
70	B2	1387	A
70	B2	1388	U
70	B2	1390	U
70	B2	1391	G
70	B2	1392	U
70	B2	1393	C
70	B2	1394	U
70	B2	1395	G
70	B2	1396	G
70	B2	1397	U
70	B2	1399	A
70	B2	1400	A
70	B2	1401	U
70	B2	1402	U
70	B2	1404	C
70	B2	1405	G
70	B2	1407	U
70	B2	1408	A
70	B2	1409	A
70	B2	1410	C
70	B2	1412	A
70	B2	1427	U
70	B2	1428	A
70	B2	1432	A
70	B2	1433	A
70	B2	1434	U
70	B2	1436	G
70	B2	1443	U
70	B2	1444	C
70	B2	1445	A
70	B2	1446	G
70	B2	1447	G
70	B2	1448	A
70	B2	1449	U
70	B2	1450	U
70	B2	1453	G
70	B2	1455	U
70	B2	1457	C

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1458	U
70	B2	1459	G
70	B2	1460	A
70	B2	1467	U
70	B2	1469	U
70	B2	1470	A
70	B2	1519	U
70	B2	1520	A
70	B2	1521	U
70	B2	1524	A
70	B2	1529	G
70	B2	1530	A
70	B2	1531	G
70	B2	1534	G
70	B2	1538	C
70	B2	1542	U
70	B2	1543	G
70	B2	1546	U
70	B2	1547	U
70	B2	1548	G
70	B2	1549	U
70	B2	1551	C
70	B2	1560	G
70	B2	1565	C
70	B2	1566	U
70	B2	1572	C
70	B2	1574	U
70	B2	1575	A
70	B2	1576	A
70	B2	1578	U
70	B2	1581	A
70	B2	1583	A
70	B2	1584	A
70	B2	1588	G
70	B2	1589	C
70	B2	1590	G
70	B2	1591	U
70	B2	1592	C
70	B2	1593	U
70	B2	1594	A
70	B2	1596	C
70	B2	1597	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1599	U
70	B2	1600	A
70	B2	1601	A
70	B2	1602	U
70	B2	1603	G
70	B2	1605	G
70	B2	1606	A
70	B2	1607	U
70	B2	1610	A
70	B2	1613	A
70	B2	1619	A
70	B2	1620	G
70	B2	1623	C
70	B2	1624	U
70	B2	1625	G
70	B2	1627	G
70	B2	1628	A
70	B2	1636	A
70	B2	1638	A
70	B2	1639	U
70	B2	1642	C
70	B2	1643	C
70	B2	1644	U
70	B2	1651	C
70	B2	1652	A
70	B2	1661	A
70	B2	1663	A
70	B2	1665	U
70	B2	1666	G
70	B2	1674	C
70	B2	1675	A
70	B2	1680	G
70	B2	1682	A
70	B2	1684	U
70	B2	1685	U
70	B2	1686	C
70	B2	1688	U
70	B2	1698	G
70	B2	1709	A
70	B2	1710	C
70	B2	1712	G
70	B2	1714	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1715	G
70	B2	1716	A
70	B2	1717	A
70	B2	1718	C
70	B2	1719	C
70	B2	1727	U
70	B2	1729	C
70	B2	1732	G
70	B2	1737	U
70	B2	1741	A
70	B2	1742	A
70	B2	1749	C
70	B2	1751	G
70	B2	1752	U
70	B2	1755	A
70	B2	1757	G
70	B2	1758	A
70	B2	1760	G
70	B2	1765	U
70	B2	1766	G
70	B2	1775	A
70	B2	1782	G
70	B2	1788	C
70	B2	1793	A
70	B2	1797	G
70	B2	1808	G
70	B2	1811	C
70	B2	1814	G
70	B2	1816	C
70	B2	1821	G
70	B2	1822	U
70	B2	1823	A
70	B2	1826	C
70	B2	1827	A
70	B2	1828	C
70	B2	1830	G
70	B2	1831	C
70	B2	1835	U
70	B2	1840	A
70	B2	1849	U
70	B2	1850	G
70	B2	1855	A

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	1857	U
70	B2	1861	U
70	B2	1870	C
70	B2	1872	G
70	B2	1874	C
70	B2	1875	G
70	B2	1876	U
70	B2	1881	A
70	B2	1882	C
70	B2	1898	G
70	B2	1903	G
70	B2	1905	U
70	B2	1906	U
70	B2	1912	G
70	B2	1914	A
70	B2	1925	G
70	B2	1926	A
70	B2	1934	U
70	B2	1936	U
70	B2	1942	G
70	B2	1949	A
70	B2	1950	A
70	B2	1951	A
70	B2	1952	G
70	B2	1956	U
70	B2	1960	A
70	B2	1961	A
70	B2	1962	G
70	B2	1963	G
70	B2	1964	U
70	B2	1971	A
70	B2	1975	G
70	B2	1977	A
70	B2	1987	G
70	B2	1988	G
70	B2	1989	A
70	B2	1990	U
70	B2	1991	C
70	B2	1993	U
70	B2	1994	U
70	B2	1995	A

All (116) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
38	A9	21	G
39	A7	119	C
40	A8	108	A
69	A5	29	U
69	A5	47	A
69	A5	89	A
69	A5	123	U
69	A5	190	A
69	A5	296	C
69	A5	419	U
69	A5	440	U
69	A5	523	C
69	A5	580	A
69	A5	615	C
69	A5	621	A
69	A5	640	U
69	A5	652	G
69	A5	662	A
69	A5	670	G
69	A5	750	G
69	A5	751	A
69	A5	774	A
69	A5	775	U
69	A5	839	A
69	A5	840	U
69	A5	871	A
69	A5	872	A
69	A5	926	U
69	A5	1096	A
69	A5	1116	G
69	A5	1159	C
69	A5	1197	A
69	A5	1206	G
69	A5	1290	U
69	A5	1293	A
69	A5	1294	U
69	A5	1308	U
69	A5	1310	A
69	A5	1324	C
69	A5	1407	C
69	A5	1565	A
69	A5	1566	U
69	A5	1594	U

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
69	A5	1659	A
69	A5	1688	A
69	A5	1689	G
69	A5	1713	U
69	A5	1784	A
69	A5	1785	G
69	A5	1798	A
69	A5	1799	U
69	A5	1801	U
69	A5	1862	U
69	A5	1889	A
69	A5	1909	U
69	A5	2062	A
69	A5	2093	U
69	A5	2125	G
69	A5	2129	C
69	A5	2155	A
69	A5	2174	A
69	A5	2491	C
69	A5	2750	A
69	A5	2796	G
69	A5	2868	A
69	A5	2993	G
69	A5	3118	U
69	A5	3247	A
69	A5	3350	U
69	A5	3359	U
69	A5	3591	A
69	A5	3608	G
69	A5	3627	C
69	A5	3711	G
69	A5	3728	A
69	A5	3729	A
69	A5	3730	G
69	A5	3754	C
69	A5	3757	U
69	A5	3760	A
69	A5	3761	U
69	A5	3839	A
69	A5	3861	A
69	A5	3969	G
70	B2	25	U

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
70	B2	113	G
70	B2	172	G
70	B2	256	C
70	B2	278	G
70	B2	378	G
70	B2	381	C
70	B2	422	A
70	B2	488	A
70	B2	511	G
70	B2	566	U
70	B2	704	U
70	B2	878	C
70	B2	937	A
70	B2	1138	U
70	B2	1185	U
70	B2	1186	U
70	B2	1196	G
70	B2	1245	A
70	B2	1284	A
70	B2	1329	A
70	B2	1331	A
70	B2	1400	A
70	B2	1519	U
70	B2	1546	U
70	B2	1595	G
70	B2	1673	U
70	B2	1748	A
70	B2	1765	U
70	B2	1807	C
70	B2	1949	A
70	B2	1992	A

#### 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
69	A5	7
70	B2	5
72	AT	1
7	CI	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AT	107:LEU	C	121:ARG	N	19.55
1	A5	2293:C	O3'	2390:U	P	18.82
1	A5	2941:G	O3'	2976:A	P	18.19
1	B2	738:A	O3'	757:U	P	14.79
1	A5	2406:A	O3'	2452:A	P	13.09
1	A5	3039:A	O3'	3083:U	P	11.82
1	B2	1236:C	O3'	1237:G	P	9.97
1	B2	1479:U	O3'	1501:A	P	6.62
1	A5	1177:U	O3'	1182:A	P	6.09
1	A5	2896:U	O3'	2897:G	P	5.83
1	A5	2819:A	O3'	2820:G	P	5.66
1	B2	666:A	O3'	687:U	P	5.55
1	B2	1817:C	O3'	1818:U	P	3.74
1	CI	132:GLY	C	133:GLN	N	1.18

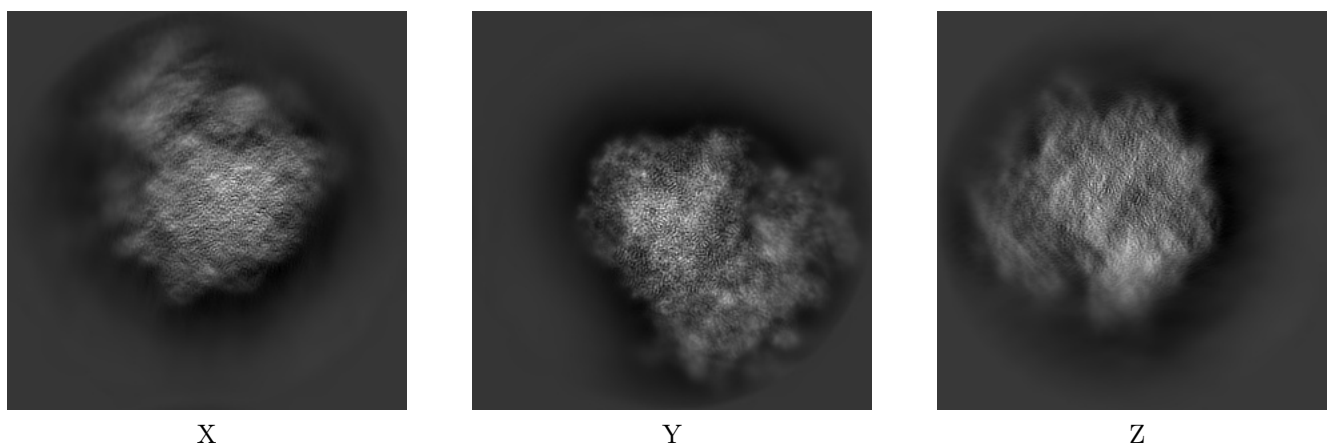
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10624. 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](#)

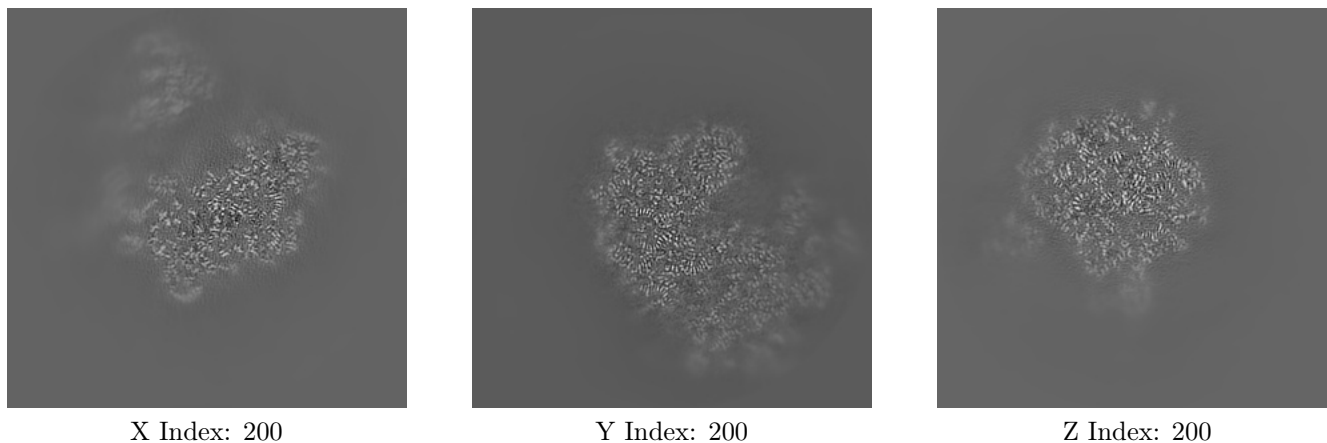
#### 6.1.1 Primary map



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

### 6.2 Central slices [i](#)

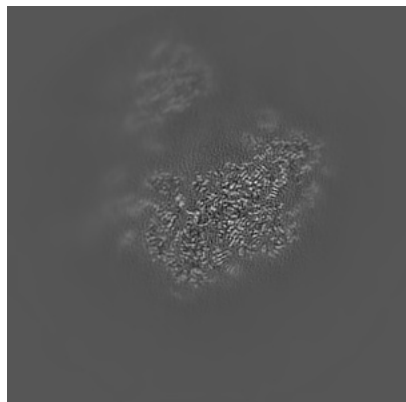
#### 6.2.1 Primary map



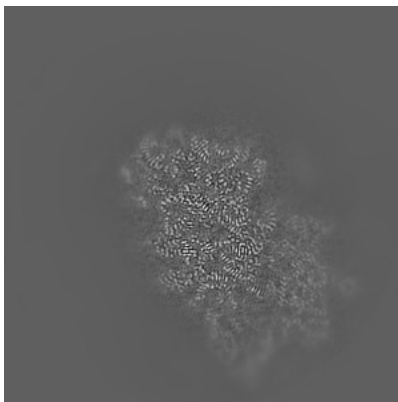
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

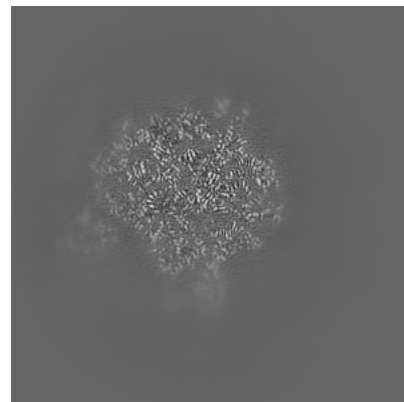
### 6.3.1 Primary map



X Index: 206



Y Index: 225



Z Index: 200

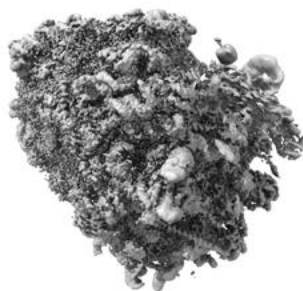
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal surface views [i](#)

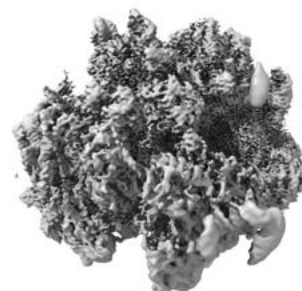
### 6.4.1 Primary map



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.

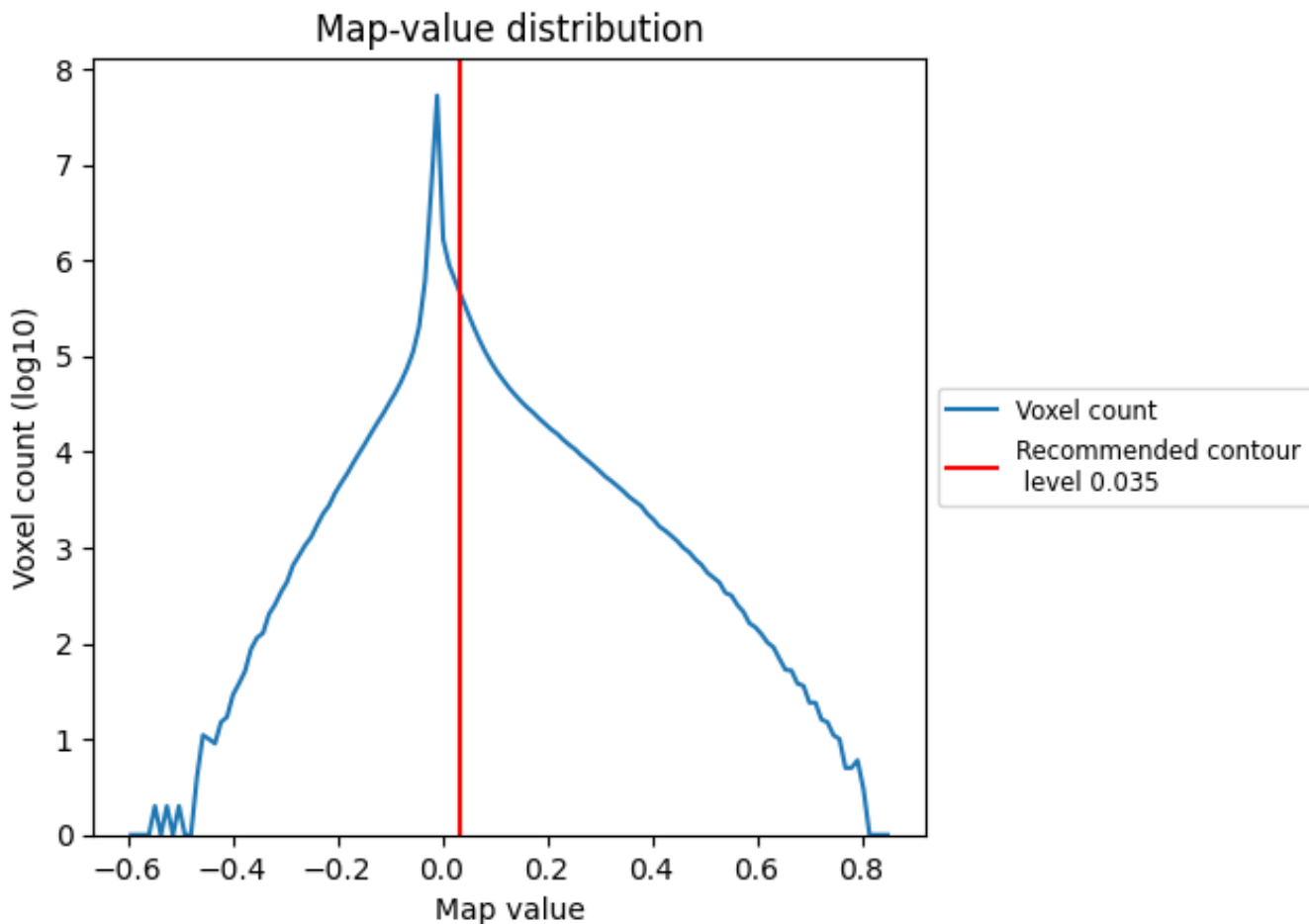
## 6.5 Mask visualisation

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

## 7 Map analysis [i](#)

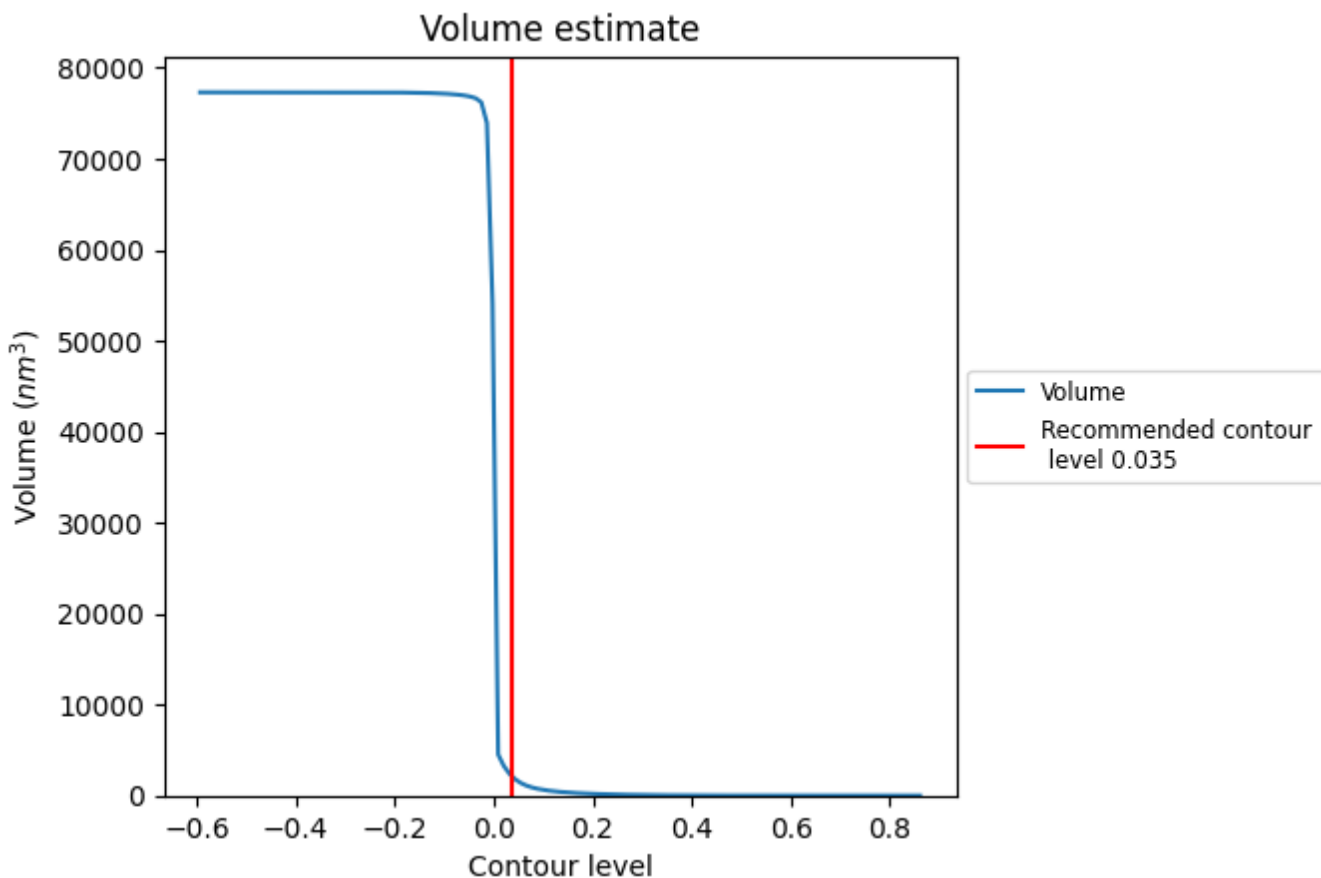
This section contains the results of statistical analysis of the map.

### 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.

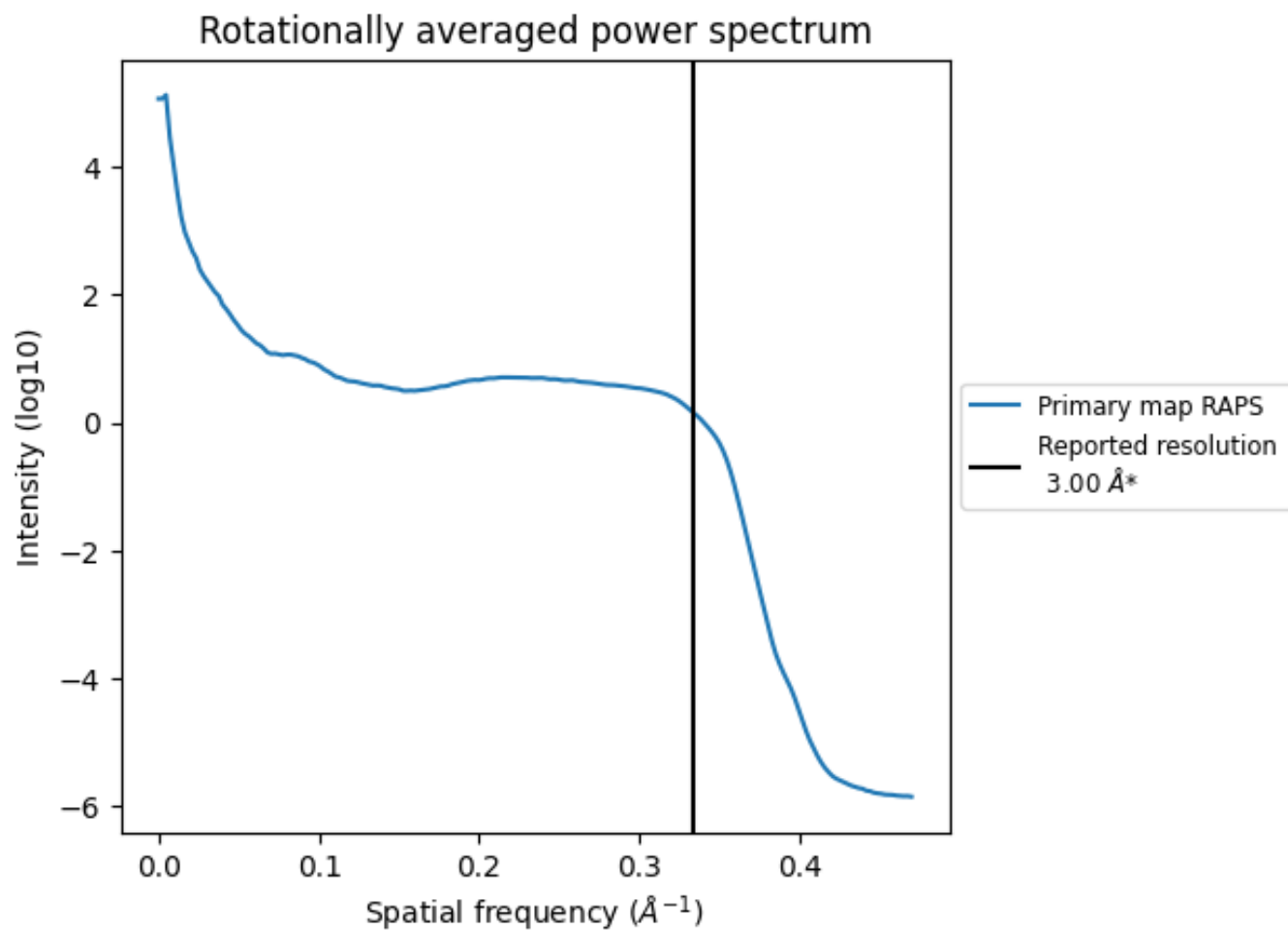
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2221 nm<sup>3</sup>; this corresponds to an approximate mass of 2007 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



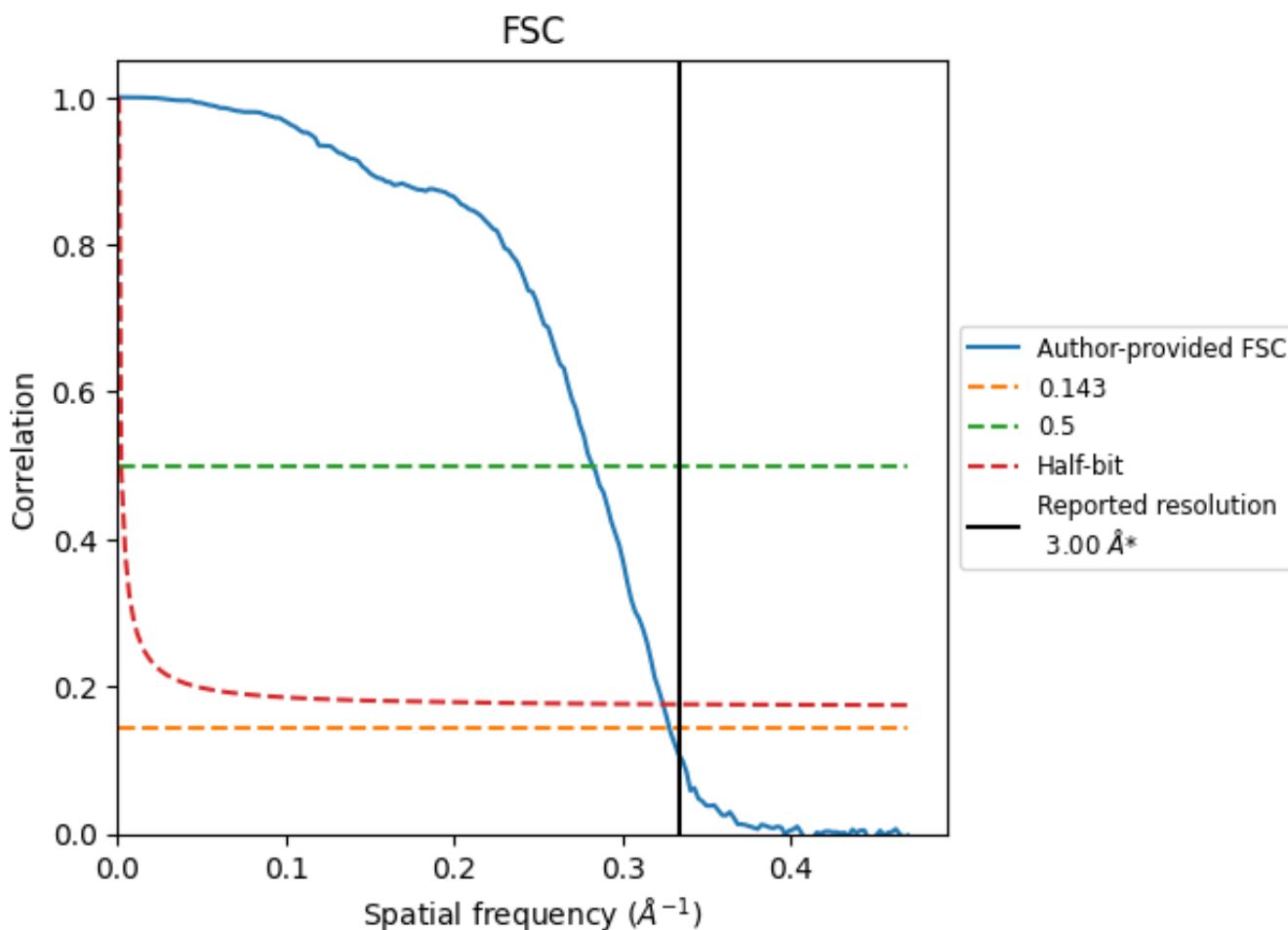
\*Reported resolution corresponds to spatial frequency of 0.333 Å<sup>-1</sup>



## 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 0.333 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

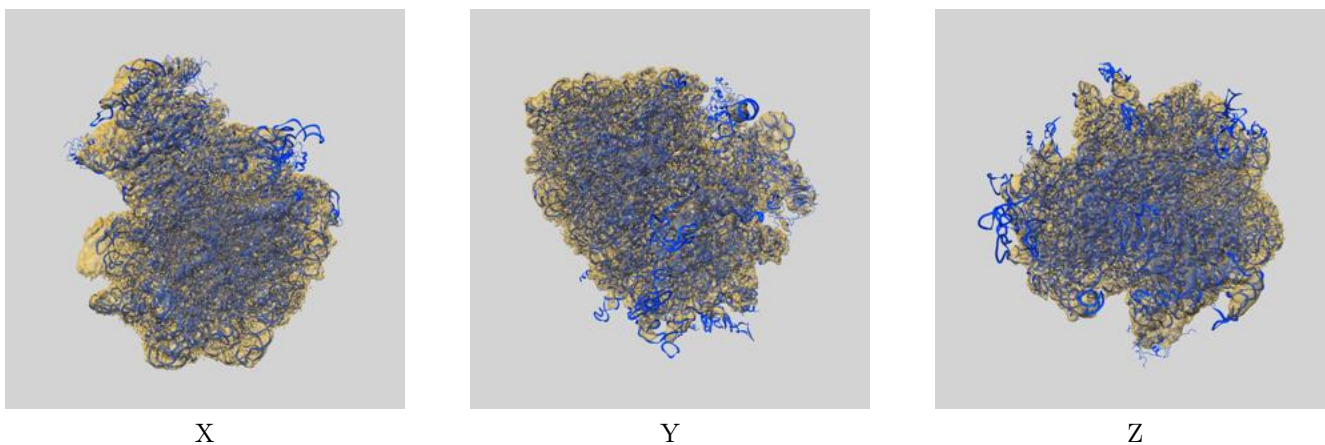
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.00	-	-
Author-provided FSC curve	3.05	3.54	3.09
Unmasked-calculated*	-	-	-

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

## 9 Map-model fit [i](#)

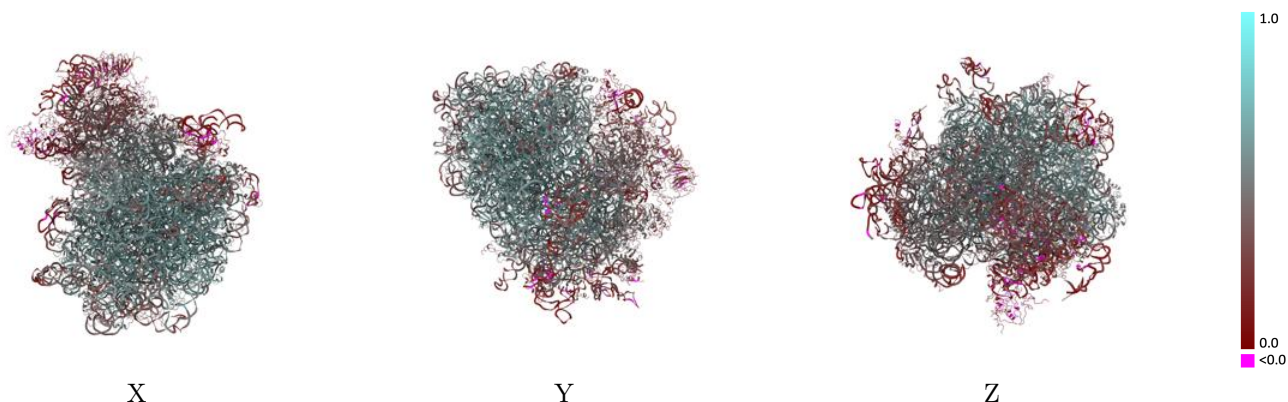
This section contains information regarding the fit between EMDB map EMD-10624 and PDB model 6XU8. Per-residue inclusion information can be found in section 3 on page 19.

### 9.1 Map-model overlay [i](#)



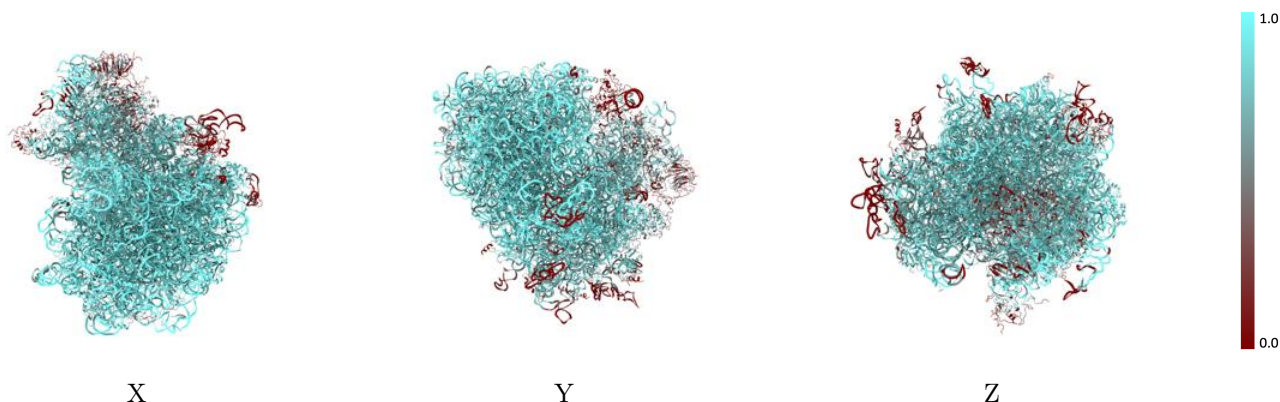
The images above show the 3D surface view of the map at the recommended contour level 0.035 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



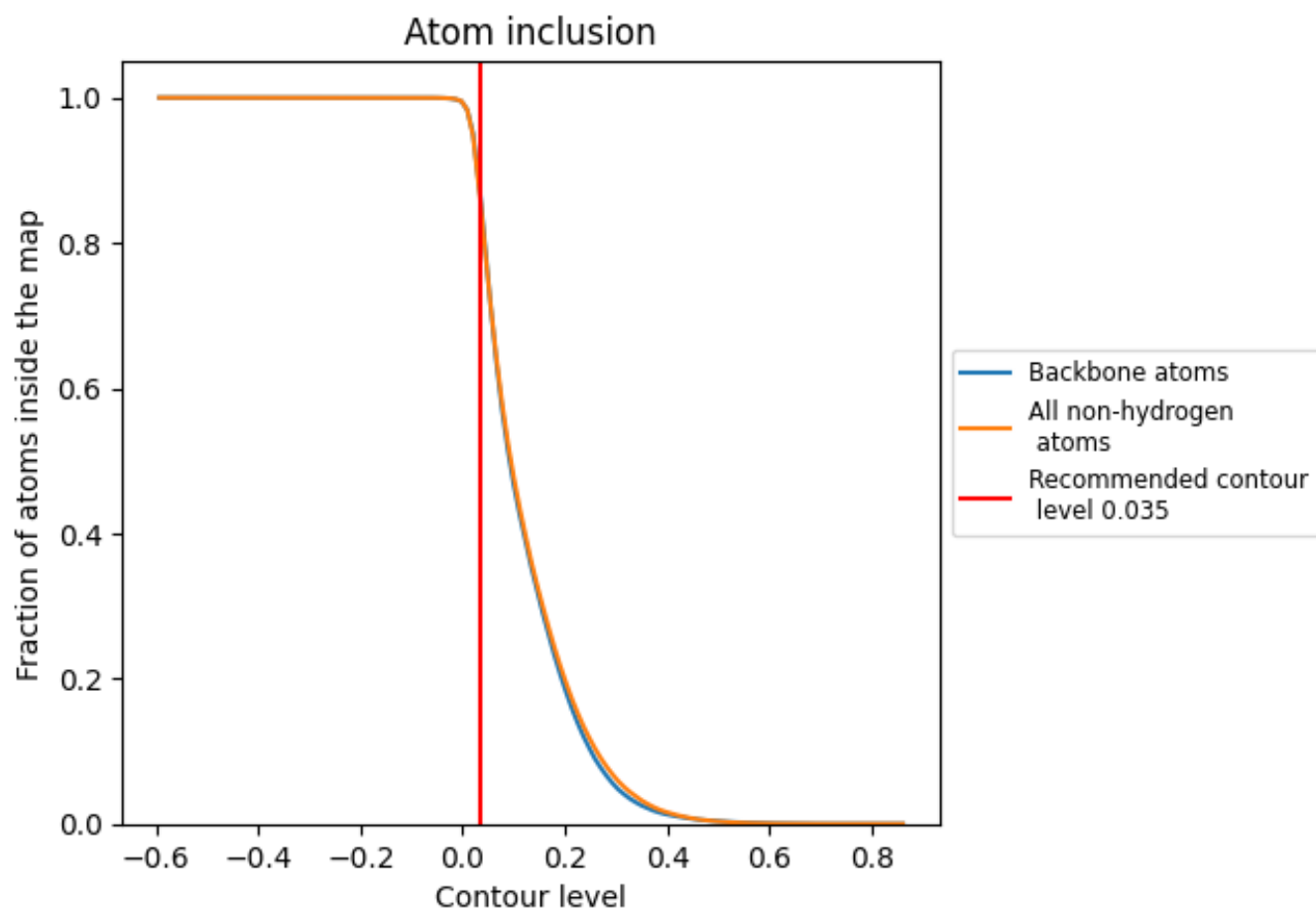
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

## 9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.035).







































































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 86% of all backbone atoms, 86% 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	Q-score
All	 0.8557	 0.4690
A5	 0.9303	 0.5240
A7	 0.9894	 0.5620
A8	 0.9786	 0.5900
A9	 0.9890	 0.5630
AA	 0.6439	 0.3570
AB	 0.7855	 0.4240
AC	 0.7076	 0.4180
AD	 0.4963	 0.2880
AE	 0.7815	 0.4400
AF	 0.4029	 0.2890
AG	 0.6767	 0.3620
AH	 0.6717	 0.3350
AI	 0.7137	 0.4450
AJ	 0.7858	 0.3840
AK	 0.8306	 0.1820
AL	 0.7307	 0.4760
AM	 0.3337	 0.0880
AN	 0.8366	 0.4940
AO	 0.8011	 0.4400
AP	 0.6411	 0.2030
AQ	 0.4760	 0.2430
AR	 0.3861	 0.2720
AS	 0.6636	 0.2790
AT	 0.6783	 0.2550
AU	 0.4620	 0.2850
AV	 0.6103	 0.3970
AW	 0.8338	 0.4890
AX	 0.7805	 0.4840
AY	 0.7452	 0.3580
AZ	 0.3970	 0.2280
Aa	 0.7762	 0.4720
Ab	 0.7903	 0.3890
Ac	 0.5365	 0.3050
Ad	 0.8285	 0.3120













*Continued on next page...*

*Continued from previous page...*

Chain	Atom inclusion	Q-score
Ae	0.6000	0.3500
Af	0.4230	0.0970
Ag	0.2735	0.1760
B2	0.8562	0.3880
CA	0.9589	0.5900
CB	0.9337	0.5680
CC	0.9431	0.5700
CD	0.8932	0.4970
CE	0.8359	0.4500
CF	0.9766	0.5970
CG	0.8212	0.4880
CH	0.9592	0.5270
CI	0.8556	0.4890
CJ	0.8406	0.4420
CL	0.8713	0.5180
CM	0.9020	0.4850
CN	0.9673	0.5880
CO	0.9583	0.5830
CP	0.8399	0.5490
CQ	0.9719	0.5970
CR	0.8274	0.4900
CS	0.9538	0.5590
CT	0.9515	0.5600
CU	0.8197	0.4670
CV	0.9579	0.5910
CW	0.9506	0.5770
CX	0.9116	0.5480
CY	0.9672	0.5800
CZ	0.9256	0.5180
Ca	0.9522	0.5710
Cb	0.9332	0.5120
Cc	0.9350	0.5380
Cd	0.9534	0.5620
Ce	0.9681	0.6060
Cf	0.9069	0.5050
Cg	0.9726	0.5870
Ch	0.9340	0.5600
Ci	0.8646	0.4810
Cj	0.9777	0.6210
Ck	0.8650	0.4890
Cl	0.9808	0.6090
Cm	0.9735	0.5340

*Continued on next page...*

*Continued from previous page...*

Chain	Atom inclusion	Q-score
Cn	 0.9349	 0.5760
Co	 0.9481	 0.5650
Cp	 0.9561	 0.5900
Cr	 0.8535	 0.5020
Cz	 0.0226	 0.1440