



## Full wwPDB EM Validation Report ⓘ

Nov 9, 2024 – 11:53 am GMT

PDB ID : 5OPT  
EMDB ID : EMD-3844  
Title : Structure of KSRP in context of Trypanosoma cruzi 40S  
Authors : Brito Querido, J.; Mancera-Martinez, E.; Vicens, Q.; Bochler, A.; Chicher, J.; Simonetti, A.; Hashem, Y.  
Deposited on : 2017-08-10  
Resolution : 4.00 Å(reported)

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

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

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

EMDB validation analysis : 0.0.1.dev113  
MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

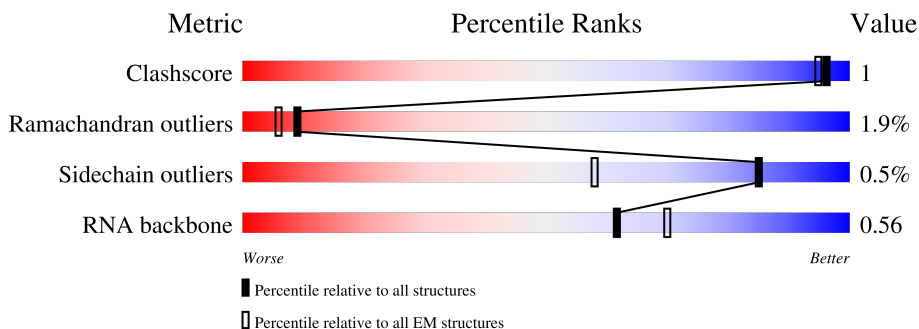
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.00 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415
RNA backbone	6643	2191

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	p	318	
2	q	57	
3	r	149	
4	t	152	
5	u	153	
6	L	273	
7	M	143	

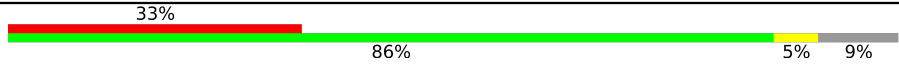


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Mol	Chain	Length	Quality of chain
8	O	190	58% 95% 5%
9	Q	211	22% 91% 5%
10	R	151	25% 92% 7%
11	S	86	37% 93% 5%
12	T	112	32% 93% 7%
13	U	112	43% 60% 39%
14	V	144	33% 92% 6%
15	W	261	21% 81% 17%
16	X	173	27% 84% 14%
17	Y	137	13% 90% 10%
18	Z	221	15% 77% 21%
19	b	190	17% 85% 14%
20	f	245	23% 82% 16%
21	d	263	24% 84% 15%
22	e	130	19% 98% ...
23	g	236	11% 35% 65%
24	a	110	40% 56% 7% 36%
25	i	141	79% 82% 14%
26	j	150	35% 38% 57%
27	P	250	27% 99% .
28	k	196	32% 59% 40%
29	l	117	57% 85% 15%
30	m	214	67% 88% 5% 7%
31	n	161	41% 55% 42%
32	o	167	44% 79% 16%

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Mol	Chain	Length	Quality of chain
33	c	66	
34	h	257	
35	E	2319	

## 2 Entry composition i

There are 35 unique types of molecules in this entry. The entry contains 82219 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 Activated protein kinase C receptor, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	p	310	2405	1505	424	463	13	0	0

- Molecule 2 is a protein called Ribosomal protein S29, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	q	38	311	191	64	52	4	0	0

- Molecule 3 is a protein called 40S ribosomal protein S16, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	r	140	1113	706	212	192	3	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	t	119	969	615	185	165	4	0	0

- Molecule 5 is a protein called 40S ribosomal protein S18, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	u	120	981	614	194	169	4	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	L	258	2038	1290	383	354	11	0	0

- Molecule 7 is a protein called 40S ribosomal protein S23, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	M	142	1116	706	220	188	2	0	0

- Molecule 8 is a protein called 40S ribosomal protein S5, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	O	190	1493	932	286	269	6	0	0

- Molecule 9 is a protein called Ribosomal protein S7, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	Q	200	1670	1063	324	277	6	0	0

- Molecule 10 is a protein called 40S ribosomal protein S13, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	R	141	1143	724	221	190	8	0	0

- Molecule 11 is a protein called 40S ribosomal protein S27, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	S	82	630	384	121	116	9	0	0

- Molecule 12 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	T	104	829	510	177	132	10	0	0

- Molecule 13 is a protein called 40S ribosomal protein S33, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	U	68	526	315	107	100	4	0	0

- Molecule 14 is a protein called 40S ribosomal protein S14, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	V	135	Total	C	N	O	S	0	0
			1011	620	195	187	9		

- Molecule 15 is a protein called 40S ribosomal protein S3a-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	W	217	Total	C	N	O	S	0	0
			1781	1124	337	313	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
16	X	148	Total	C	N	O	S	0	0
			1212	760	239	207	6		

- Molecule 17 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Y	123	Total	C	N	O	S	0	0
			989	628	194	165	2		

- Molecule 18 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Z	175	Total	C	N	O	S	0	0
			1404	885	283	233	3		

- Molecule 19 is a protein called 40S ribosomal protein S9, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	b	164	Total	C	N	O	S	0	0
			1365	864	266	227	8		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
20	f	207	Total	C	N	O	S	0	0
			1658	1060	299	288	11		

- Molecule 21 is a protein called 40S ribosomal protein S2, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	d	223	1726	1098	304	314	10	0	0

- Molecule 22 is a protein called 40S ribosomal protein S15a, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	e	129	1019	647	188	176	8	0	0

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	g	83	635	395	116	122	2	0	0

- Molecule 24 is a protein called Ribosomal protein S25, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	a	70	553	356	97	97	3	0	0

- Molecule 25 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	i	121	958	594	174	185	5	0	0

- Molecule 26 is a protein called Ubiquitin/ribosomal protein S27a, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
26	j	64	518	324	98	90	6	0	0

- Molecule 27 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
27	P	249	1983	1244	402	333	4	0	0

- Molecule 28 is a protein called 40S ribosomal protein S17, putative.



Mol	Chain	Residues	Atoms					AltConf	Trace
28	k	118	Total	C	N	O	S	0	0
			972	610	187	170	5		

- Molecule 29 is a protein called Ribosomal protein S20, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	l	99	Total	C	N	O	S	0	0
			784	497	144	140	3		

- Molecule 30 is a protein called 40S ribosomal protein S3, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	m	200	Total	C	N	O	S	0	0
			1587	995	302	279	11		

- Molecule 31 is a protein called 40S ribosomal protein S10, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	n	93	Total	C	N	O	S	0	0
			780	508	136	132	4		

- Molecule 32 is a protein called Ribosomal protein S19, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	o	140	Total	C	N	O	S	0	0
			1116	702	221	185	8		

- Molecule 33 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	c	60	Total	C	N	O	S	0	0
			480	303	98	78	1		

- Molecule 34 is a protein called RNA-binding protein, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	h	173	Total	C	N	O	S	0	0
			1358	862	259	234	3		

- Molecule 35 is a RNA chain called 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
35	E	2022	43106	19268	7710	14111	2017	0	0

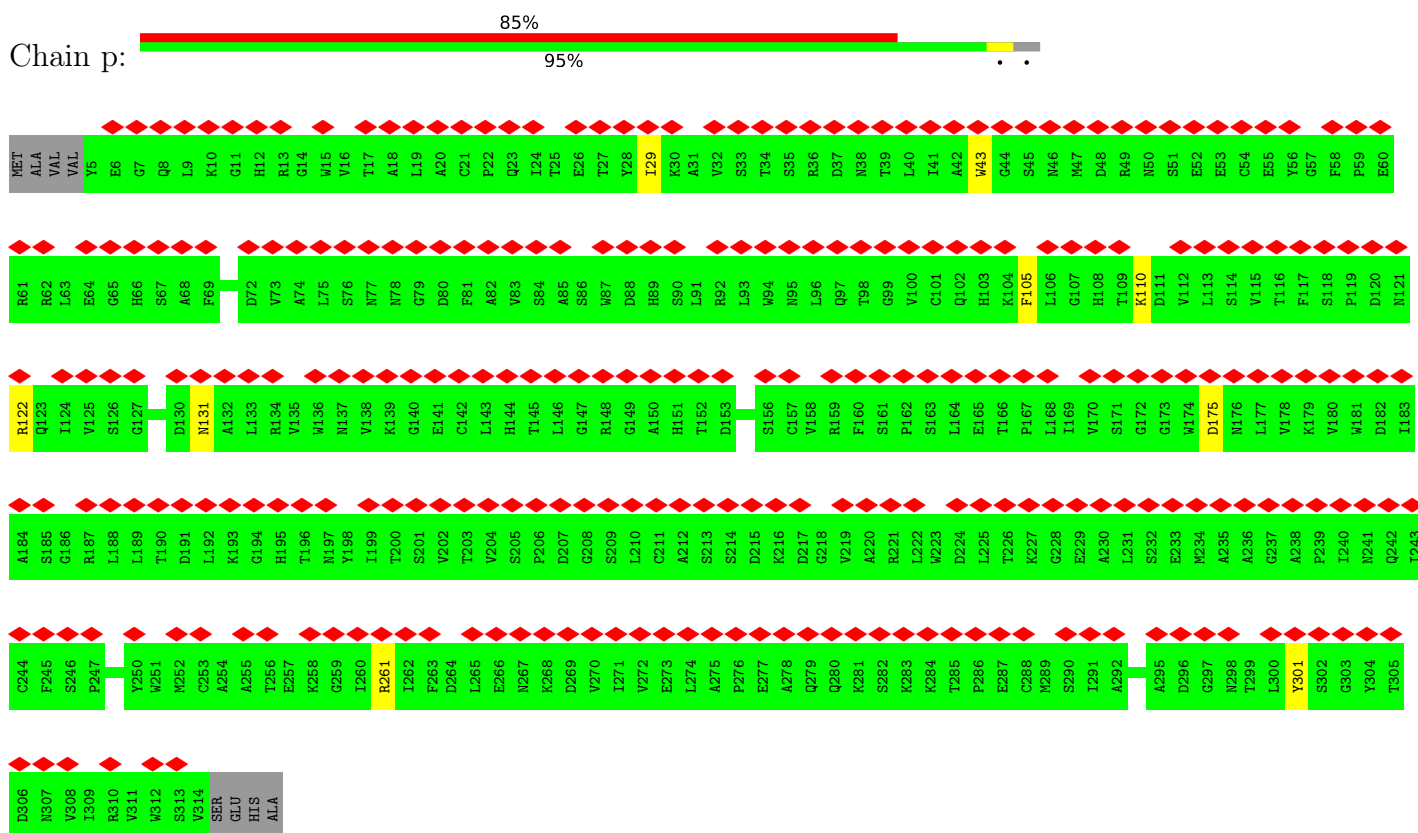
There are 5 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	143	C	A	conflict	GB 320364483
E	805	C	U	conflict	GB 320364483
E	2316	U	-	insertion	GB 320364483
E	2317	U	-	insertion	GB 320364483
E	2318	U	-	insertion	GB 320364483

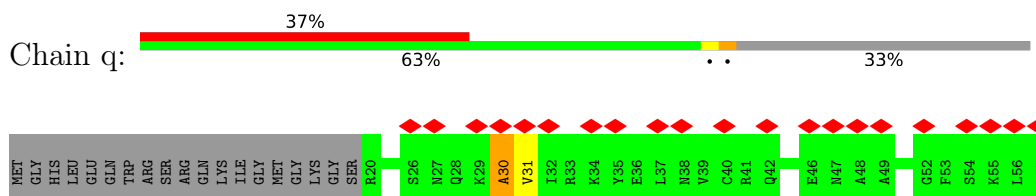
### 3 Residue-property plots i

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.

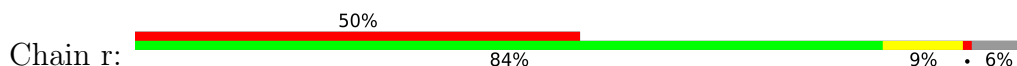
- Molecule 1: Activated protein kinase C receptor, putative

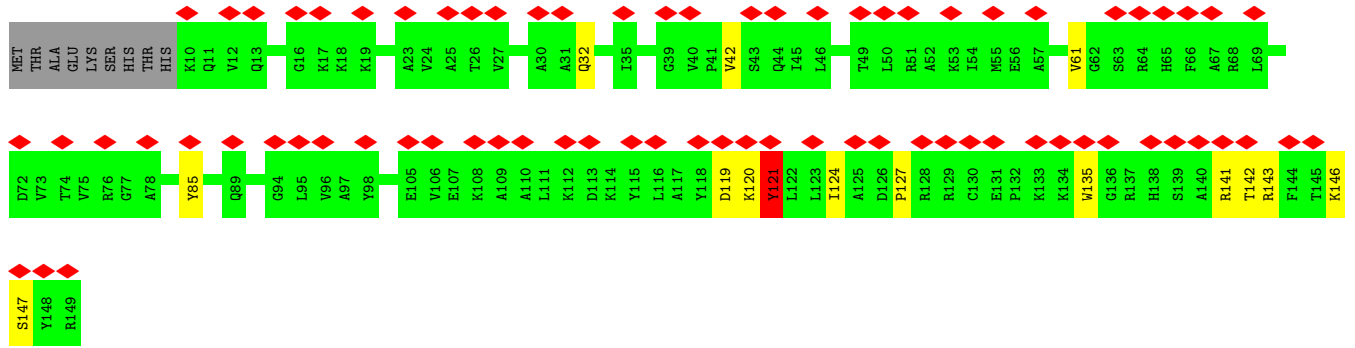


- Molecule 2: Ribosomal protein S29, putative

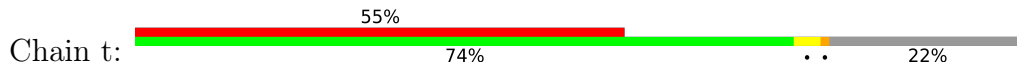


- Molecule 3: 40S ribosomal protein S16, putative

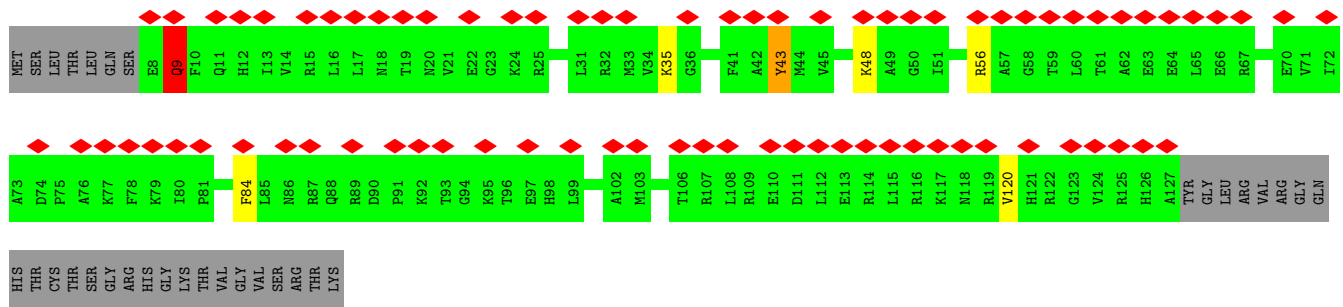
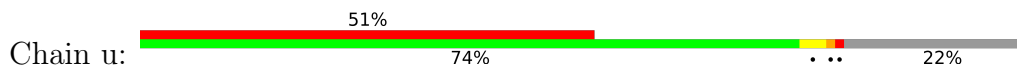




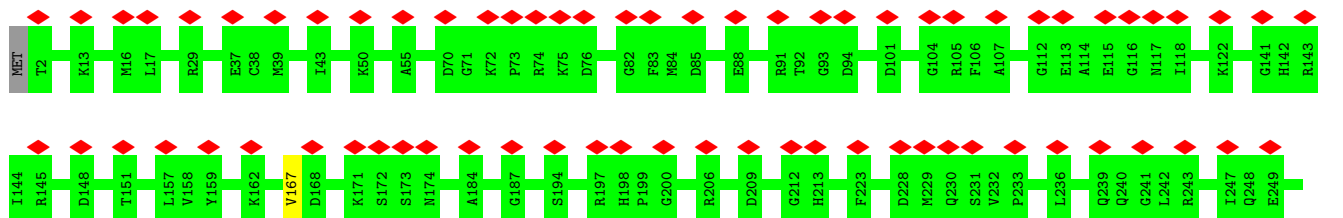
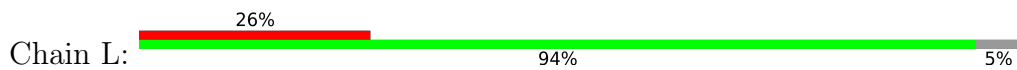
• Molecule 4: 40S ribosomal protein S15, putative

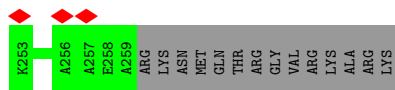


• Molecule 5: 40S ribosomal protein S18, putative

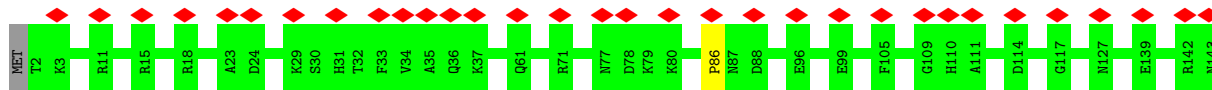


• Molecule 6: 40S ribosomal protein S4

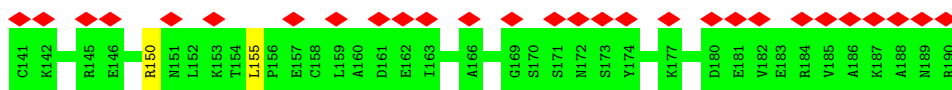
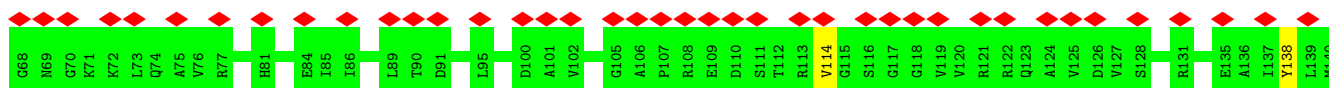
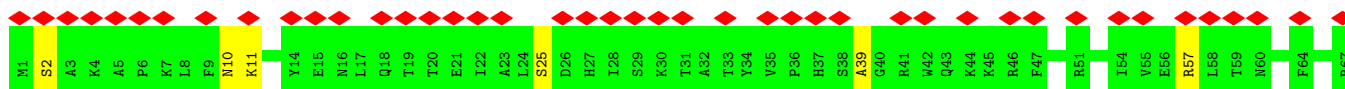




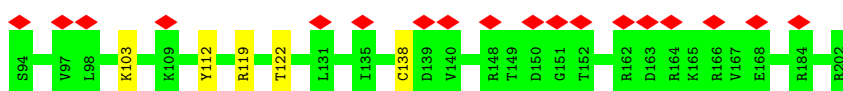
- Molecule 7: 40S ribosomal protein S23, putative



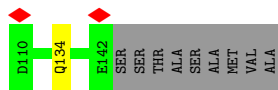
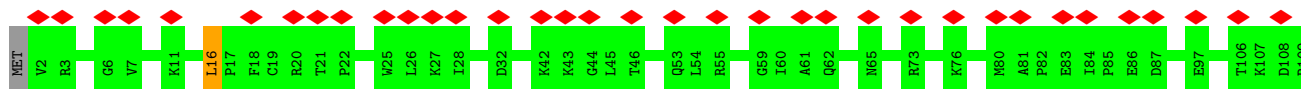
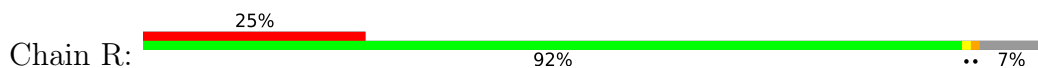
- Molecule 8: 40S ribosomal protein S5, putative



- Molecule 9: Ribosomal protein S7, putative

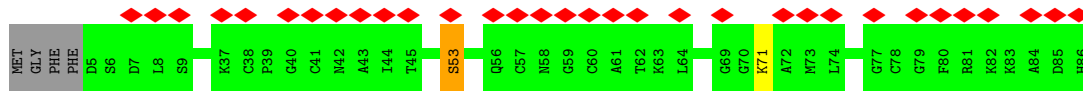


- Molecule 10: 40S ribosomal protein S13, putative



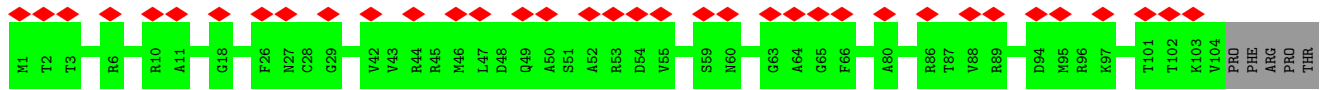
- Molecule 11: 40S ribosomal protein S27, putative

Chain S:



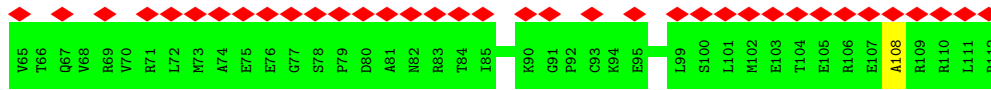
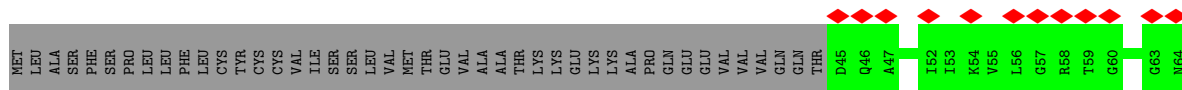
• Molecule 12: 40S ribosomal protein S26

Chain T:



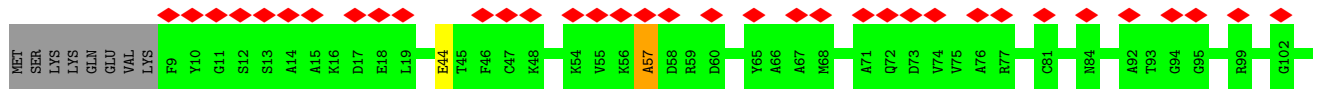
• Molecule 13: 40S ribosomal protein S33, putative

Chain U:



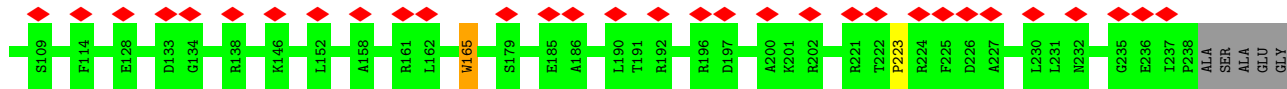
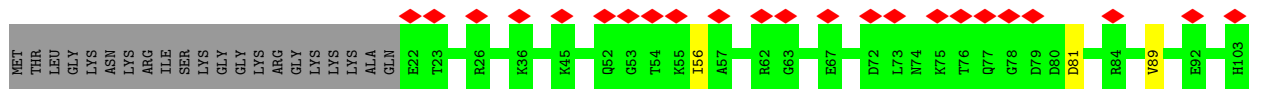
• Molecule 14: 40S ribosomal protein S14, putative

Chain V:



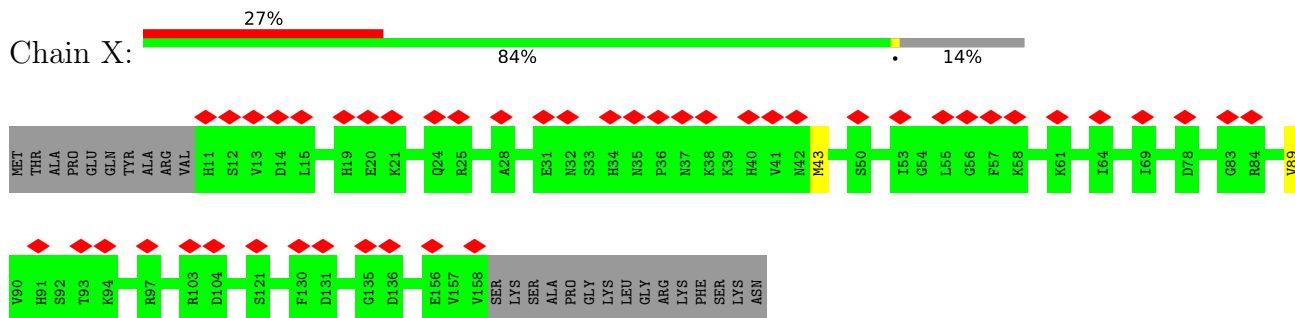
• Molecule 15: 40S ribosomal protein S3a-2

Chain W:

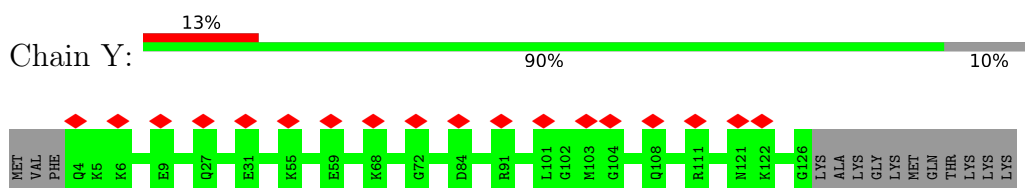


GLU  
ALA  
ALA  
ARG  
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VAL  
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GLU  
ALA  
THR  
ALA

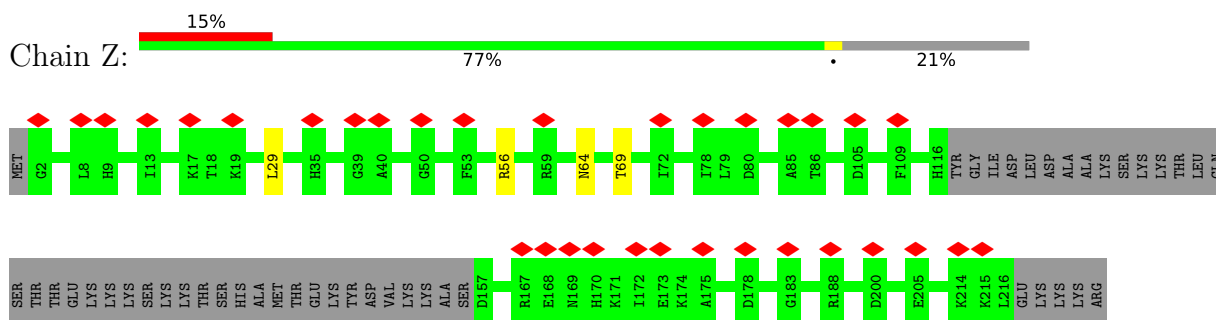
- Molecule 16: 40S ribosomal protein S11, putative



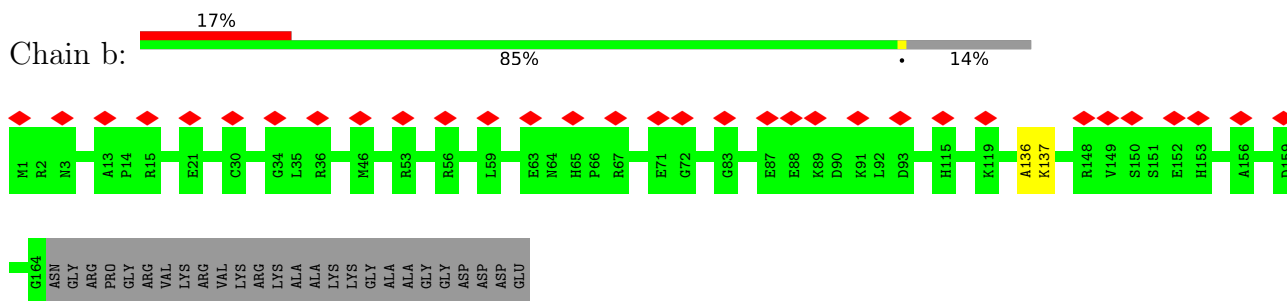
- Molecule 17: 40S ribosomal protein S24



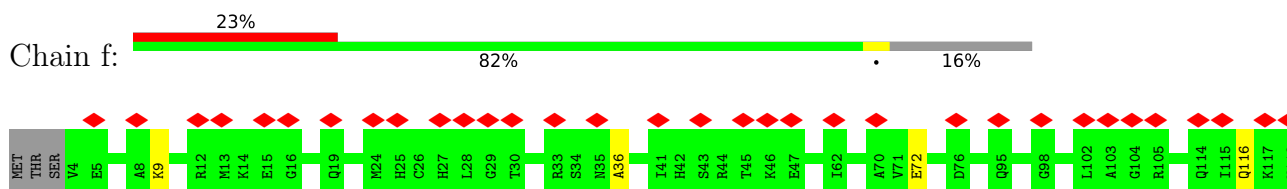
- Molecule 18: 40S ribosomal protein S8



- Molecule 19: 40S ribosomal protein S9, putative

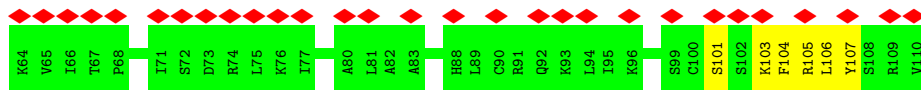


- Molecule 20: 40S ribosomal protein SA

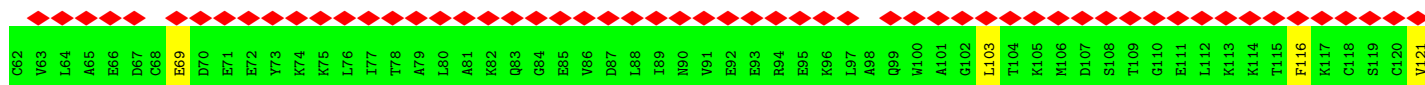
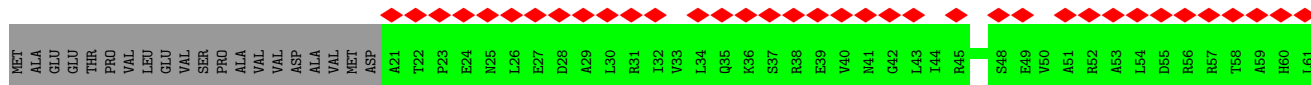
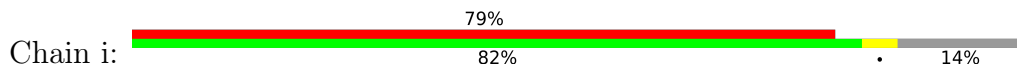




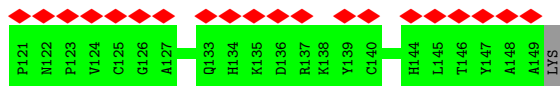
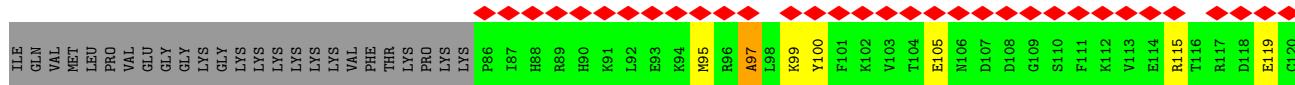
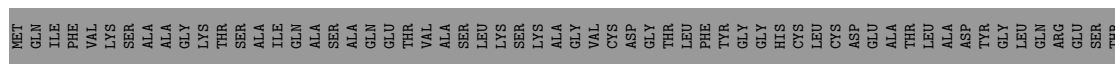




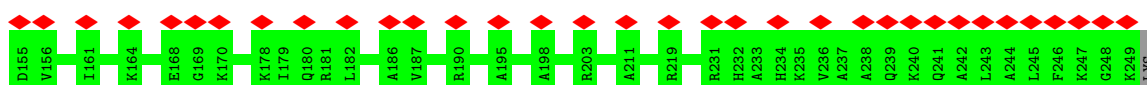
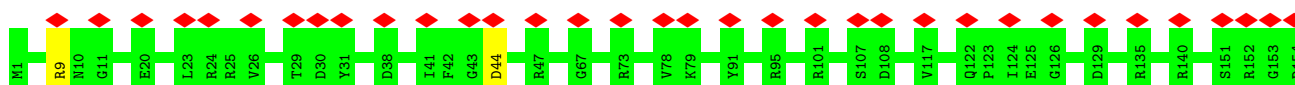
• Molecule 25: 40S ribosomal protein S12



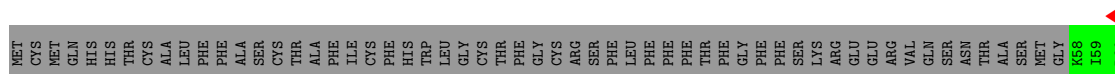
• Molecule 26: Ubiquitin/ribosomal protein S27a, putative

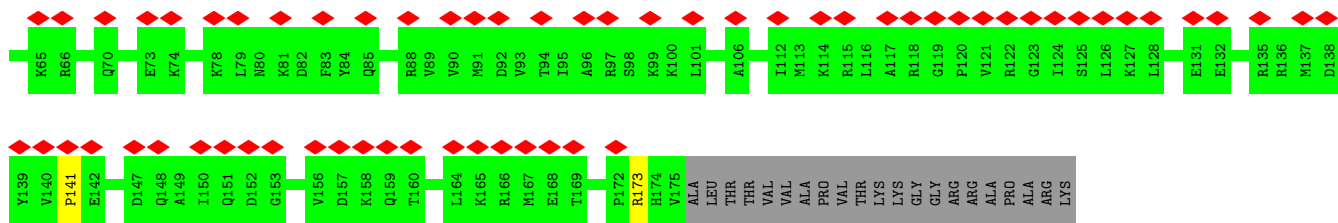


• Molecule 27: 40S ribosomal protein S6

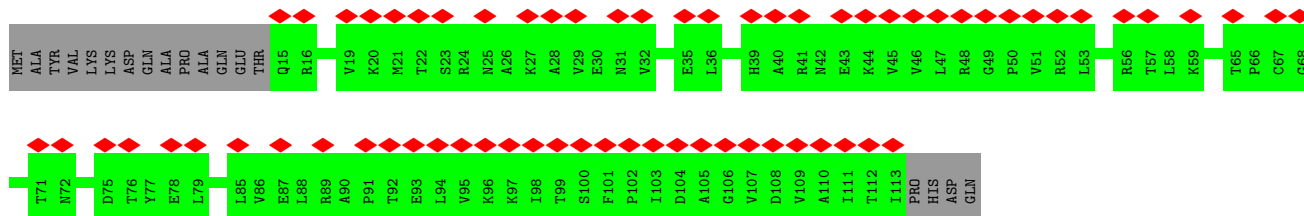
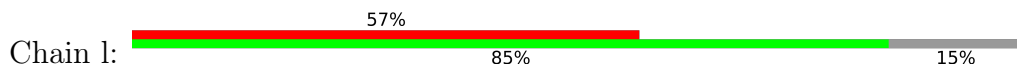


• Molecule 28: 40S ribosomal protein S17, putative

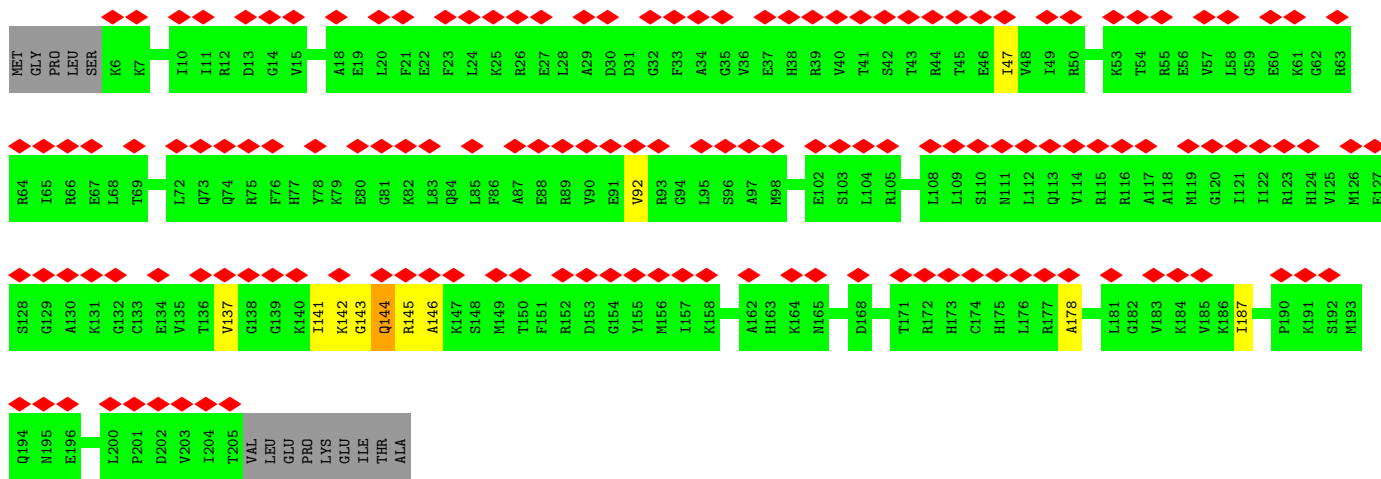
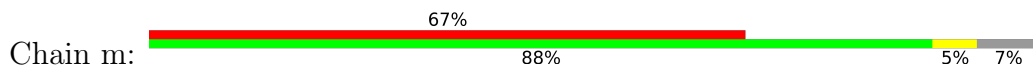




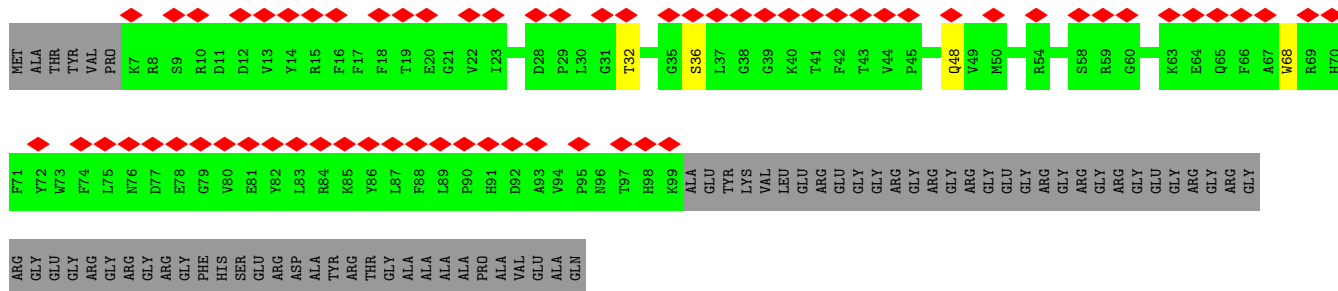
• Molecule 29: Ribosomal protein S20, putative



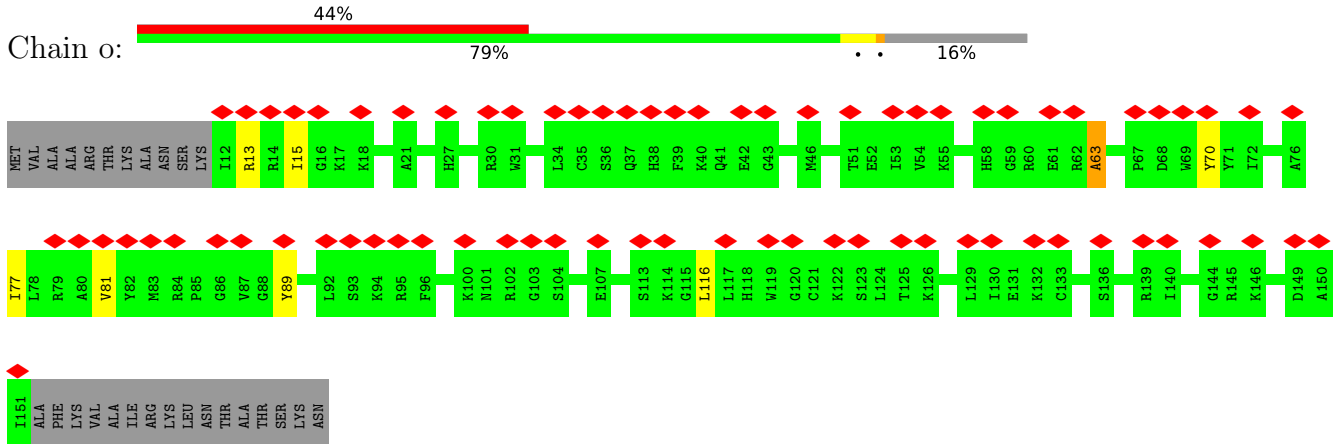
• Molecule 30: 40S ribosomal protein S3, putative



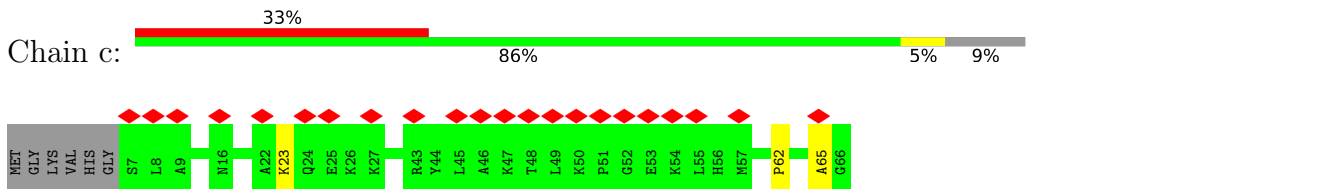
• Molecule 31: 40S ribosomal protein S10, putative



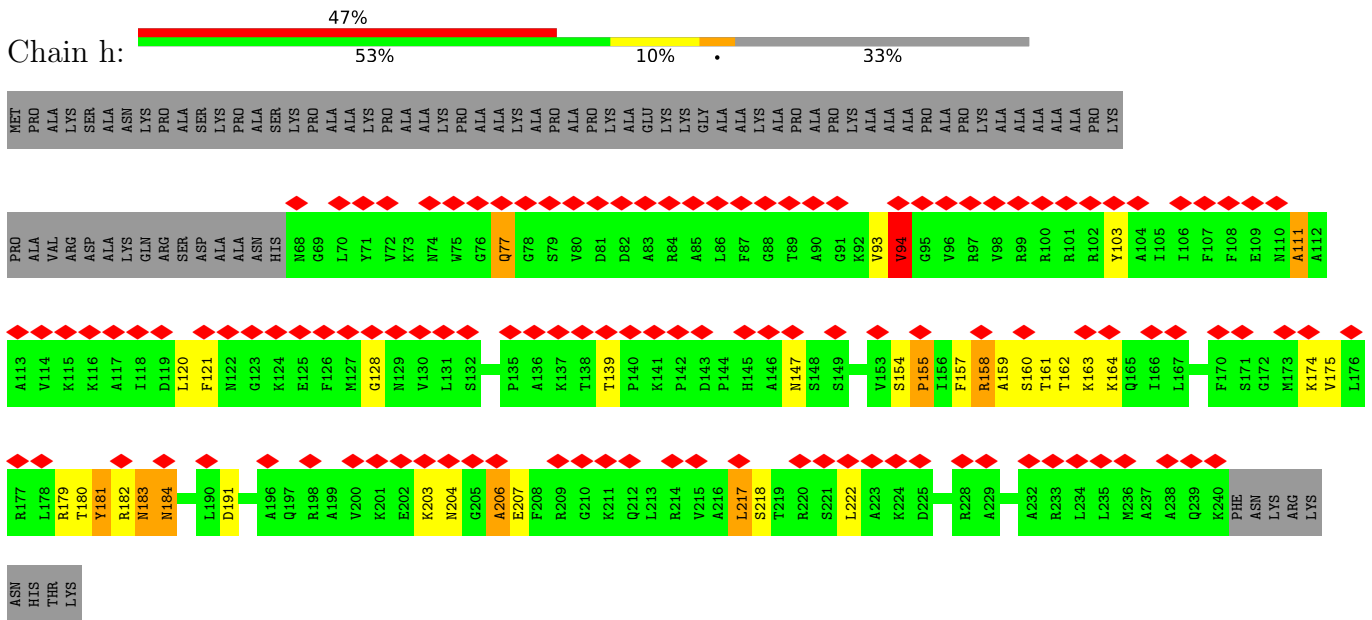
● Molecule 32: Ribosomal protein S19, putative



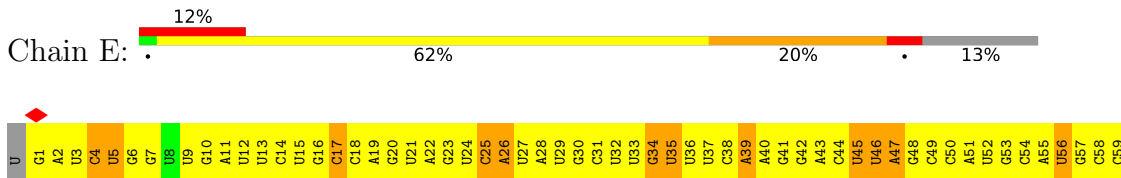
● Molecule 33: 40S ribosomal protein S30

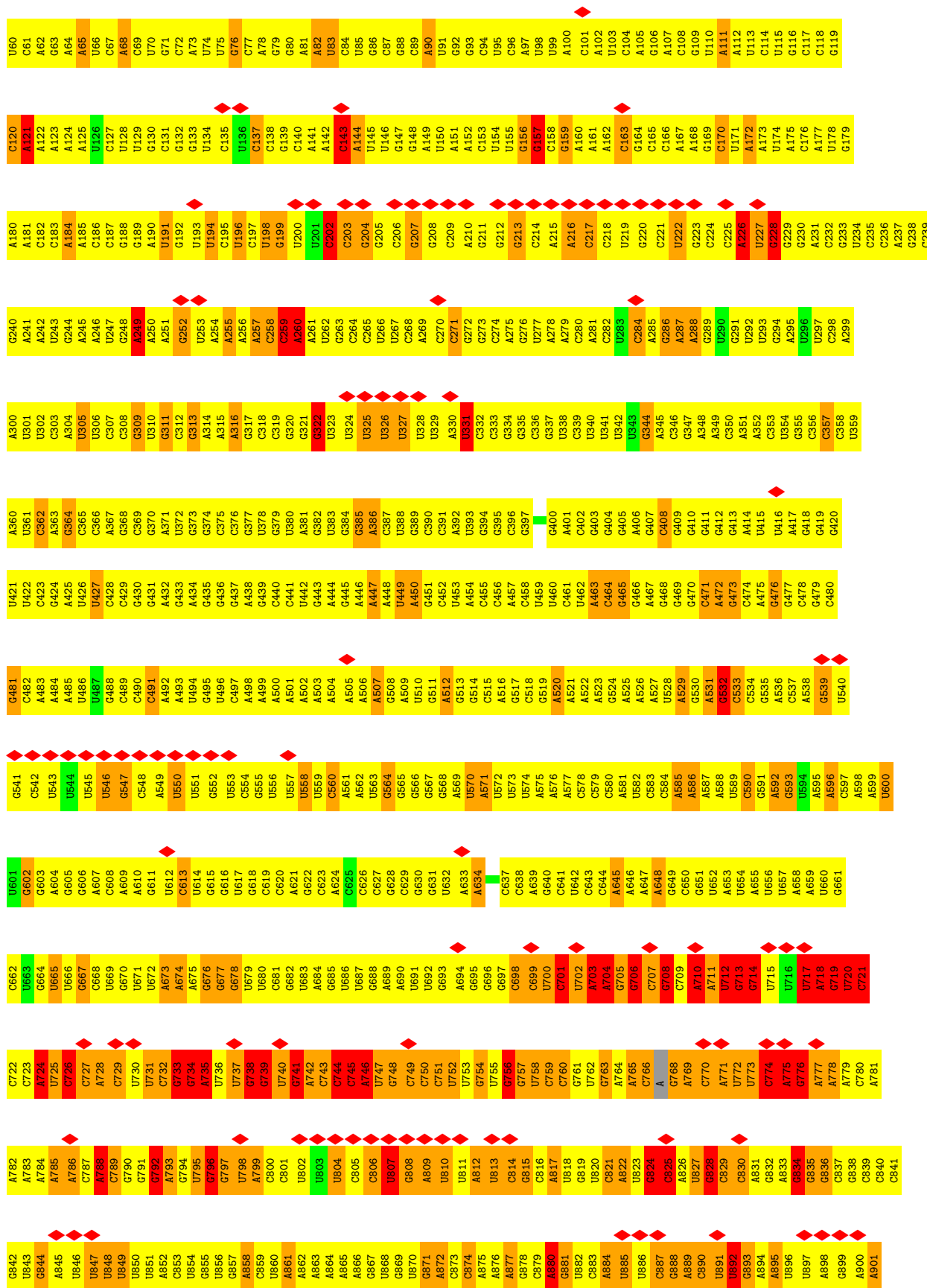


● Molecule 34: RNA-binding protein, putative



● Molecule 35: 18S rRNA





U1682	G1622	G1322	G1262	G1202	U1082	A962	A902
C1683	G1623	A1323	G1263	G1203	G1083	G963	G903
C1684	U1684	U1324	A1264	U1204	G1084	U964	C904
G1685	G1325	C1325	A1265	A1205	G1085	C965	A905
G1686	G1326	G1326	G1266	G1206	A1086	C966	U906
C1687	U1327	U1327	U1267	U1207	U1087	A967	G907
C1688	A1328	A1328	A1268	U1208	A1088	U968	G908
A1689	G1329	G1329	C1269	C1209	A1089	U969	G909
G1690	U1330	U1330	G1270	G1210	U1089	G970	A910
G1691	A1331	A1331	G1271	G1211	C	U971	U911
G1692	G1332	G1332	C1272	G1212	C	A972	A912
U1693	A1333	A1333	G1273	G1213	C	G973	A913
C1694	U1334	U1334	A1274	G1214	C	U974	C914
G1695	U1335	U1335	A1275	A1215	C	U975	A915
A1696	G1336	A1336	G1276	G1216	U	U976	A916
G1697	U1337	G1337	A1277	A1217	U	U977	A917
G1698	A1338	A1338	C1278	A1218	U	U978	G918
A1699	G1339	G1339	A1279	C1219	U	G979	G919
U1700	A1340	A1340	U1280	G1220	U	G980	A920
G1701	C1341	C1341	U1281	U1221	U	G981	G921
A1702	G1342	G1342	C1282	A1222	U	G982	C922
C1703	U1343	U1343	U1283	C1223	G	C983	A923
A1704	G1344	A1344	U1284	U1224	U	A984	G924
G1705	U1345	U1345	C1285	G1225	C	G985	C925
U1706	G1346	G1346	A1286	G1226	C	U986	C926
A1707	U1347	U1347	A1287	U1227	U	G987	U927
U1708	A1348	A1348	G1288	G1228	U	U988	C928
U1709	G1349	G1349	U1289	C1229	U	U989	U929
A1710	U1350	U1350	A1290	U1230	A	C990	G930
G1711	C1351	C1351	U1291	U1231	U	G991	G931
U1712	A1352	A1352	A1292	C1232	U	A990	G932
G1713	U1353	U1353	C1293	A1233	U	C991	C933
U1714	G1354	G1354	U1294	U1234	U	A992	C934
U1715	A1355	A1355	U1295	U1235	U	A993	A935
C1716	U1356	U1356	C1296	A1236	U	G994	C936
U1717	G1357	G1357	U1297	G1237	U	U995	C937
U1718	U1358	U1358	U1298	U1238	U	G996	G938
U1719	A1359	A1359	C1300	G1239	U	U997	U939
A1720	U1360	U1360	A1301	A1241	C	C998	U940
U1721	G1361	G1361	U1302	U1242	U	U999	U941
C1722	U1362	U1362	C1303	U1243	G	G	C942
A1723	G1363	A1363	A1304	U1244	U	G	G943
G1724	U1364	U1364	C1305	C1245	U	G	G944
U1725	U1365	U1365	A1306	U1246	U	U	C945
C1726	G1666	G1666	G1307	U1247	U	G	U946
G1727	U1667	U1667	A1308	A1248	U	U	U947
A1728	G1668	A1668	C1309	G1249	U	U	U948
U1729	A1670	A1670	A1310	A1250	C	U	G949
G1730	U1671	U1671	C1311	C1251	U	U	U950
U1731	C1672	C1672	A1312	G1252	U	U	G951
A1732	U1673	U1673	A1313	U1253	U	U	C952
G1733	G1674	G1674	A1314	C1254	C	U	G953
U1734	A1675	A1675	G1315	A1255	U	U	G954
G1735	C1676	C1676	U1316	C1256	U	U	U955
U1736	U1677	U1677	G1317	C1257	U	U	U956
C1737	G1678	G1678	U1318	A1258	U	U	U957
A1738	A1679	A1679	G1319	G1259	U	U	U958
G1739	U1680	U1680	U1320	A1260	C	U	A959
U1740	A1681	A1681	G1321	A1261	U	U	A960
G1741							A961

A2284	G2224	U2164	A2104	G2043	U1983	U1923	C1863	A1803	C1742
G2285	C2225	A2165	C2105	G2044	A1884	G1924	C1864	A1804	A1743
G2286	U2226	C2166	G2106	A2045	C1985	A1925	C1865	A1805	U1744
U2287	U2227	A2167	A2107	A2046	A1986	G1926	U1806	G1745	G1745
G2288	C2228	C2168	G2108	A2047	U1988	U1927	A1866	U1807	G1746
G2289	C2229	A2169	G2109	A2048	G1989	U1928	G1867	G1747	G1747
C2290	A2229	C2170	A2110	C2049	U1990	U1929	G1868	C1748	C1748
U2291	C2230	G2171	A2111	C2050	C1991	U1930	G1869	C1810	G1749
U2292	U2231	G2172	G2112	C2051	C1992	U1931	G1870	C1811	C1750
U2293	U2232	C2173	G2113	C2052	A1993	G1932	A1871	A1812	U1751
G2294	G2233	C2174	G2114	G2053	U1994	G1933	G1871	G1813	U1754
G2295	A2234	C2175	U2115	G2054	G1995	G1934	G1872	U1814	U1754
U2297	C2235	G2176	G2116	A2055	A1996	C1935	G1873	G1756	G1756
G2298	G2236	U2177	C2117	A2056	G1997	A1936	C1874	A1815	U1757
G2299	G2237	C2178	G2118	U2057	A1998	A1937	G1875	G1817	U1757
A2299	A2238	G2179	U2119	U2058	A1999	C1938	G1876	A1818	G1759
A2300	A2239	U2180	A2120	C2058	C2000	A1939	U1877	G1760	G1760
C2301	G2240	U2181	G2121	A2059	A2001	G1940	A1878	U1761	U1761
C2302	A2241	U2182	G2122	C2060	C2002	C1941	U1879	G1762	G1762
G2303	G2242	U2183	C2123	G2061	A2003	A1942	U1880	G1763	G1763
G2304	U2243	U2184	G2124	U2062	G2003	G1943	C1881	A1764	A1764
C2305	U2244	U2185	C2125	A2063	A2004	G1944	U1882	G1823	G1765
A2306	C2245	C2186	A2126	G2064	A2005	U1945	G1883	A1824	U1766
G2307	A2246	C2187	G2127	A2065	A2006	U1946	G1882	U1826	U1766
C2308	C2247	G2188	C2128	C2066	A2007	U1947	C1883	G1827	G1767
U2309	G2248	U2189	U2129	C2067	A2008	U1948	U1884	U1768	A1768
G2310	A2249	U2190	C2130	C2068	C2009	G1949	U1885	U1769	U1769
G2311	U2250	U2191	A2131	A2069	G2010	G1950	G1886	C1829	C1829
A2312	C2251	U2192	U2132	C2070	G2011	A1951	U1887	U1771	U1771
U2313	U2252	U2193	C2133	C2071	A2012	U1952	A1888	G1830	G1772
C2314	U2253	G2194	A2134	U2072	C2013	G1953	U1889	C1831	U1773
A2315	U2254	U2195	A2135	G2073	U2014	C1954	U1890	A1832	U1774
U2316	C2255	U2196	U2136	G2074	C2015	U1955	C1891	U1833	U1775
U2317	U2256	C2197	C2137	A2075	U2016	C1956	C1892	A	G1776
U2318	G2257	U2198	U2138	G2076	U2017	U1957	U1893	G	G1777
	C2258	A2199	G2139	C2077	G2018	U1958	U1894	C	U1778
	A2259	U2200	U2140	C2078	U2019	C1959	C1895	U	A1779
	U2260	A2201	G2141	C2079	G2020	A1960	U1896	A	G1780
	U2261	C2202	C2142	A2080	G2021	A1961	C1897	A	A1781
	G2262	C2203	C2143	G2081	G2022	U1962	U1897	C	U1782
	G2263	A2204	G2144	U2082	A2023	G1963	G1898	C	U1783
	A2264	G2205	A2145	A2083	C2024	U1964	G1899	A	C1784
	G2265	G2206	U2146	U2084	U2025	G1965	G1900	A	C1785
	G2266	U2207	U2147	U2085	A2026	U1966	G1901	A	G1786
	A2267	G2208	A2148	U2086	C2027	U1967	G1902	U	U1787
	G2268	A2209	C2149	G2087	U2028	G1968	A1903	C1845	C1788
	G2269	C2210	G2150	A2088	G2029	G1969	U1904	C1846	C1847
	C2270	C2211	U2151	A2089	G2030	C1970	U1905	U1848	U1790
	A2271	G2212	C2152	U2090	A2031	C1971	C1906	U1849	C1791
	A2272	G2213	C2153	U2091	U2032	G1972	C1907	C1850	G1792
	A2273	A2214	U2154	A2092	A2032	A1973	U1908	C1851	G1793
	U2274	C2215	G2155	G2093	C2033	C1974	U1909	G1852	C1795
	G2275	A2216	G2156	G2094	A2034	A1975	G1910	C1853	G1796
	U2276	G2217	C2157	G2095	A2035	C1976	U1911	C1854	A1797
	C2277	U2218	C2158	G2096	A2036	G1977	U1912	G1855	G1798
	G2278	G2219	A2159	U2097	U2037	C1978	U1913	G1856	A1799
	G2279	G2220	U2160	C2098	A2038	G1979	U1914	U1857	U1800
	U2279	A2221	U2161	G2099	A2039	C1980	G1915	U1858	C1801
	A2280	G2222	U2162	C2100	G2040	A1981	C1916	U1859	U1802
	A2281	U2223	G2163	G2101	U2041	C1982	G1917	U1860	A1861
	C2282		C2102	C2103	G2042		C1918	U1862	C1862
	A2283		C2103				C1919		

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	86000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	2.2	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	0.257	Depositor
Minimum map value	-0.132	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.017	Depositor
Recommended contour level	0.0549	Depositor
Map size (Å)	499.19998, 499.19998, 499.19998	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.56, 1.56, 1.56	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	p	0.94	0/2461	1.01	3/3347 (0.1%)
2	q	1.09	0/314	1.04	1/416 (0.2%)
3	r	1.02	0/1131	1.11	5/1520 (0.3%)
4	t	1.02	0/988	1.05	3/1325 (0.2%)
5	u	1.05	0/996	1.10	5/1334 (0.4%)
6	L	0.99	0/2073	0.98	0/2787
7	M	0.97	0/1137	0.94	0/1520
8	O	0.99	0/1515	0.96	0/2034
9	Q	1.06	0/1703	1.01	0/2290
10	R	1.00	0/1164	0.96	0/1559
11	S	0.99	0/641	1.01	1/858 (0.1%)
12	T	1.13	0/845	1.00	0/1129
13	U	1.13	0/527	1.04	0/702
14	V	1.04	0/1026	1.02	1/1376 (0.1%)
15	W	1.03	0/1809	1.01	1/2437 (0.0%)
16	X	1.02	0/1238	0.96	0/1662
17	Y	1.01	0/1004	0.98	0/1335
18	Z	1.06	0/1424	1.01	0/1904
19	b	1.03	0/1394	0.95	0/1874
20	f	0.97	0/1693	1.01	5/2290 (0.2%)
21	d	0.94	0/1760	1.03	2/2376 (0.1%)
22	e	1.00	0/1037	1.03	0/1391
23	g	0.92	0/644	0.89	0/875
24	a	0.92	0/559	1.03	1/748 (0.1%)
25	i	0.98	0/966	0.97	2/1295 (0.2%)
26	j	0.98	0/530	1.10	3/707 (0.4%)
27	P	1.09	0/2008	0.98	0/2678
28	k	1.00	0/985	0.98	0/1313
29	l	0.99	0/794	1.06	0/1076
30	m	1.03	0/1606	1.02	4/2141 (0.2%)
31	n	0.98	0/804	0.99	0/1082
32	o	1.00	0/1140	1.09	2/1524 (0.1%)
33	c	0.98	0/488	0.97	0/644
34	h	1.06	0/1381	1.22	4/1857 (0.2%)



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
35	E	1.63	86/48215 (0.2%)	2.51	5573/75140 (7.4%)
All	All	1.38	86/88000 (0.1%)	2.03	5616/128546 (4.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	p	0	3
3	r	0	7
4	t	0	2
5	u	0	4
8	O	0	3
9	Q	0	3
15	W	0	1
18	Z	0	1
22	e	0	1
24	a	0	2
26	j	0	1
27	P	0	2
28	k	0	1
30	m	0	2
32	o	0	2
33	c	0	2
34	h	0	22
35	E	4	121
All	All	4	180

All (86) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	E	724	A	N9-C4	-14.62	1.29	1.37
35	E	734	G	N9-C4	-13.56	1.27	1.38
35	E	711	A	N9-C4	-10.05	1.31	1.37
35	E	718	A	N9-C4	-9.61	1.32	1.37
35	E	738	G	N9-C4	-8.96	1.30	1.38
35	E	746	A	N9-C4	-8.02	1.33	1.37
35	E	733	G	N1-C2	8.02	1.44	1.37
35	E	724	A	N3-C4	-7.54	1.30	1.34
35	E	724	A	N7-C5	-7.52	1.34	1.39
35	E	1873	G	C6-N1	6.76	1.44	1.39

*Continued on next page...*

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	E	953	G	N1-C2	6.71	1.43	1.37
35	E	162	A	N7-C5	-6.59	1.35	1.39
35	E	746	A	N7-C5	-6.45	1.35	1.39
35	E	172	A	N7-C5	-6.44	1.35	1.39
35	E	2189	A	N7-C5	-6.42	1.35	1.39
35	E	1600	A	N7-C5	-6.35	1.35	1.39
35	E	1327	A	N7-C5	-6.30	1.35	1.39
35	E	1305	A	N7-C5	-6.29	1.35	1.39
35	E	1852	G	N1-C2	6.11	1.42	1.37
35	E	711	A	N7-C5	-6.09	1.35	1.39
35	E	2104	A	N7-C5	-6.07	1.35	1.39
35	E	1593	A	N7-C5	-6.06	1.35	1.39
35	E	1082	U	C2'-C1'	-6.01	1.46	1.53
35	E	1768	A	N7-C5	-6.00	1.35	1.39
35	E	1872	G	C2'-C1'	-5.95	1.46	1.53
35	E	256	A	N7-C5	-5.94	1.35	1.39
35	E	954	G	N1-C2	5.85	1.42	1.37
35	E	1083	G	C2'-C1'	-5.82	1.47	1.53
35	E	2264	A	N7-C5	-5.75	1.35	1.39
35	E	1554	A	N7-C5	-5.73	1.35	1.39
35	E	1348	A	N7-C5	-5.66	1.35	1.39
35	E	1328	A	N7-C5	-5.60	1.35	1.39
35	E	1872	G	C2-N3	5.58	1.37	1.32
35	E	97	A	N7-C5	-5.54	1.35	1.39
35	E	1384	G	N1-C2	5.50	1.42	1.37
35	E	1873	G	N1-C2	5.50	1.42	1.37
35	E	1185	A	N7-C5	-5.49	1.35	1.39
35	E	734	G	N1-C2	5.46	1.42	1.37
35	E	40	A	N7-C5	-5.46	1.35	1.39
35	E	952	U	C2-N3	5.46	1.41	1.37
35	E	1634	C	N3-C4	5.44	1.37	1.33
35	E	2120	A	N7-C5	-5.41	1.36	1.39
35	E	833	A	C2'-C1'	-5.40	1.47	1.53
35	E	895	A	N7-C5	-5.38	1.36	1.39
35	E	734	G	C6-N1	5.36	1.43	1.39
35	E	259	C	N3-C4	5.33	1.37	1.33
35	E	1876	G	N1-C2	5.31	1.42	1.37
35	E	1186	U	C2-N3	5.30	1.41	1.37
35	E	1601	A	N7-C5	-5.28	1.36	1.39
35	E	90	A	N7-C5	-5.27	1.36	1.39
35	E	953	G	N9-C4	-5.26	1.33	1.38
35	E	725	U	C2-N3	5.24	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	E	2113	G	N1-C2	5.23	1.42	1.37
35	E	1625	A	N7-C5	-5.21	1.36	1.39
35	E	2134	A	N7-C5	-5.21	1.36	1.39
35	E	1730	U	C2-N3	5.20	1.41	1.37
35	E	260	A	N7-C5	-5.20	1.36	1.39
35	E	175	A	N7-C5	-5.18	1.36	1.39
35	E	738	G	N1-C2	5.18	1.41	1.37
35	E	51	A	N7-C5	-5.17	1.36	1.39
35	E	2214	A	N7-C5	-5.17	1.36	1.39
35	E	1675	U	C2-N3	5.17	1.41	1.37
35	E	2204	A	N7-C5	-5.17	1.36	1.39
35	E	2145	A	N7-C5	-5.15	1.36	1.39
35	E	1599	A	N7-C5	-5.13	1.36	1.39
35	E	446	A	N7-C5	-5.12	1.36	1.39
35	E	777	A	N7-C5	-5.12	1.36	1.39
35	E	202	C	N3-C4	5.12	1.37	1.33
35	E	807	U	O3'-P	-5.11	1.55	1.61
35	E	1233	A	N7-C5	-5.11	1.36	1.39
35	E	1773	U	C2-N3	5.09	1.41	1.37
35	E	710	A	N7-C5	-5.08	1.36	1.39
35	E	774	C	O3'-P	-5.08	1.55	1.61
35	E	2152	C	N3-C4	5.08	1.37	1.33
35	E	979	G	C2-N3	5.07	1.36	1.32
35	E	1553	A	N7-C5	-5.06	1.36	1.39
35	E	757	G	C2-N3	5.06	1.36	1.32
35	E	834	G	C2-N3	5.06	1.36	1.32
35	E	909	G	C2-N3	5.06	1.36	1.32
35	E	592	A	N7-C5	-5.05	1.36	1.39
35	E	756	G	N1-C2	5.04	1.41	1.37
35	E	722	C	N1-C2	-5.04	1.35	1.40
35	E	1825	A	N7-C5	-5.03	1.36	1.39
35	E	1899	C	N3-C4	5.03	1.37	1.33
35	E	363	A	N7-C5	-5.03	1.36	1.39
35	E	718	A	N7-C5	-5.01	1.36	1.39

All (5616) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	774	C	P-O3'-C3'	37.91	165.19	119.70
35	E	1187	C	P-O3'-C3'	33.90	160.37	119.70
35	E	976	U	O5'-P-OP2	-24.56	81.23	110.70
35	E	976	U	O5'-P-OP1	-24.39	81.44	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	703	A	P-O3'-C3'	23.77	148.22	119.70
35	E	531	A	P-O3'-C3'	22.35	146.52	119.70
35	E	1904	U	P-O3'-C3'	21.62	145.65	119.70
35	E	807	U	P-O3'-C3'	20.81	144.67	119.70
35	E	769	A	P-O3'-C3'	20.03	143.74	119.70
35	E	998	C	P-O3'-C3'	18.73	142.18	119.70
35	E	1546	C	P-O3'-C3'	18.58	141.99	119.70
35	E	1191	G	P-O3'-C3'	18.57	141.98	119.70
35	E	2048	A	P-O3'-C3'	18.40	141.78	119.70
35	E	2049	C	P-O3'-C3'	17.14	140.26	119.70
35	E	939	U	P-O3'-C3'	16.81	139.87	119.70
35	E	756	G	P-O3'-C3'	16.39	139.37	119.70
35	E	808	G	P-O3'-C3'	16.26	139.21	119.70
35	E	227	U	P-O3'-C3'	16.06	138.97	119.70
35	E	701	C	P-O3'-C3'	15.68	138.51	119.70
35	E	711	A	N1-C6-N6	15.56	127.94	118.60
35	E	918	G	P-O3'-C3'	15.32	138.08	119.70
35	E	810	U	P-O3'-C3'	15.11	137.83	119.70
35	E	724	A	N1-C6-N6	15.06	127.64	118.60
35	E	275	A	N1-C6-N6	14.90	127.54	118.60
35	E	279	A	N1-C6-N6	14.80	127.48	118.60
35	E	697	G	P-O3'-C3'	14.59	137.21	119.70
35	E	1088	A	N1-C6-N6	14.56	127.34	118.60
35	E	795	U	P-O3'-C3'	14.56	137.17	119.70
35	E	975	U	O3'-P-O5'	14.46	131.48	104.00
35	E	890	C	P-O3'-C3'	14.46	137.05	119.70
35	E	175	A	N1-C6-N6	14.43	127.26	118.60
35	E	765	A	P-O3'-C3'	14.34	136.91	119.70
35	E	727	C	P-O3'-C3'	14.27	136.82	119.70
35	E	1639	A	N1-C6-N6	14.23	127.14	118.60
35	E	705	G	P-O3'-C3'	14.04	136.54	119.70
35	E	1607	A	N1-C6-N6	13.97	126.98	118.60
35	E	962	A	N1-C6-N6	13.96	126.97	118.60
35	E	1534	A	N1-C6-N6	13.92	126.95	118.60
35	E	260	A	N1-C6-N6	13.88	126.93	118.60
35	E	1200	A	N1-C6-N6	13.84	126.90	118.60
35	E	942	C	P-O3'-C3'	13.78	136.24	119.70
35	E	2136	A	N1-C6-N6	13.76	126.85	118.60
35	E	536	A	N1-C6-N6	13.74	126.84	118.60
35	E	738	G	N1-C6-O6	13.65	128.09	119.90
35	E	777	A	P-O3'-C3'	13.64	136.07	119.70
35	E	813	U	P-O3'-C3'	13.63	136.05	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	210	A	N1-C6-N6	13.57	126.74	118.60
35	E	734	G	N1-C6-O6	13.57	128.04	119.90
35	E	984	A	N1-C6-N6	13.55	126.73	118.60
35	E	1554	A	N1-C6-N6	13.54	126.73	118.60
35	E	1903	A	P-O3'-C3'	13.47	135.86	119.70
35	E	2306	A	N1-C6-N6	13.42	126.65	118.60
35	E	2281	A	N1-C6-N6	13.39	126.64	118.60
35	E	746	A	N1-C6-N6	13.35	126.61	118.60
35	E	1593	A	N1-C6-N6	13.35	126.61	118.60
35	E	561	A	N1-C6-N6	13.25	126.55	118.60
35	E	1287	A	N1-C6-N6	13.25	126.55	118.60
35	E	483	A	N1-C6-N6	13.25	126.55	118.60
35	E	261	A	N1-C6-N6	13.24	126.54	118.60
35	E	1998	A	N1-C6-N6	13.23	126.54	118.60
35	E	920	A	N1-C6-N6	13.21	126.52	118.60
35	E	2280	A	N1-C6-N6	13.20	126.52	118.60
35	E	2092	A	N1-C6-N6	13.20	126.52	118.60
35	E	646	A	N1-C6-N6	13.15	126.49	118.60
35	E	2217	G	P-O3'-C3'	13.14	135.47	119.70
35	E	2229	A	N1-C6-N6	13.13	126.48	118.60
35	E	1374	A	N1-C6-N6	13.12	126.47	118.60
35	E	1193	A	N1-C6-N6	13.09	126.46	118.60
35	E	2245	A	N1-C6-N6	13.09	126.45	118.60
35	E	1981	A	N1-C6-N6	13.05	126.43	118.60
35	E	434	A	N1-C6-N6	13.05	126.43	118.60
35	E	2268	A	N1-C6-N6	13.04	126.43	118.60
35	E	889	A	N1-C6-N6	13.04	126.42	118.60
35	E	1652	A	N1-C6-N6	13.04	126.42	118.60
35	E	910	A	N1-C6-N6	13.03	126.42	118.60
35	E	1986	A	N1-C6-N6	13.02	126.41	118.60
35	E	1790	A	N1-C6-N6	13.00	126.40	118.60
35	E	1218	A	N1-C6-N6	13.00	126.40	118.60
35	E	892	U	P-O3'-C3'	12.98	135.27	119.70
35	E	1866	A	N1-C6-N6	12.96	126.38	118.60
35	E	1799	A	N1-C6-N6	12.95	126.37	118.60
35	E	2022	A	N1-C6-N6	12.94	126.37	118.60
35	E	1925	A	N1-C6-N6	12.94	126.36	118.60
35	E	1268	A	N1-C6-N6	12.93	126.36	118.60
35	E	1301	A	N1-C6-N6	12.92	126.35	118.60
35	E	1804	A	N1-C6-N6	12.92	126.35	118.60
35	E	864	A	N1-C6-N6	12.91	126.35	118.60
35	E	492	A	N1-C6-N6	12.89	126.33	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2080	A	N1-C6-N6	12.89	126.33	118.60
35	E	2251	A	N1-C6-N6	12.88	126.33	118.60
35	E	923	A	N1-C6-N6	12.88	126.33	118.60
35	E	1240	A	N1-C6-N6	12.87	126.32	118.60
35	E	538	A	N1-C6-N6	12.86	126.32	118.60
35	E	1595	A	N1-C6-N6	12.86	126.32	118.60
35	E	2264	A	N1-C6-N6	12.86	126.31	118.60
35	E	2059	A	N1-C6-N6	12.85	126.31	118.60
35	E	278	A	N1-C6-N6	12.82	126.30	118.60
35	E	457	A	N1-C6-N6	12.79	126.28	118.60
35	E	1973	A	N1-C6-N6	12.79	126.28	118.60
35	E	526	A	N1-C6-N6	12.78	126.27	118.60
35	E	645	A	N1-C6-N6	12.78	126.27	118.60
35	E	1615	A	N1-C6-N6	12.77	126.26	118.60
35	E	1360	A	N1-C6-N6	12.76	126.26	118.60
35	E	160	A	N1-C6-N6	12.76	126.25	118.60
35	E	2004	A	N1-C6-N6	12.75	126.25	118.60
35	E	976	U	OP1-P-OP2	12.74	138.71	119.60
35	E	2002	A	N1-C6-N6	12.74	126.25	118.60
35	E	1290	A	N1-C6-N6	12.74	126.24	118.60
35	E	1815	A	N1-C6-N6	12.73	126.24	118.60
35	E	702	U	P-O3'-C3'	12.72	134.97	119.70
35	E	22	A	N1-C6-N6	12.72	126.23	118.60
35	E	1702	A	N1-C6-N6	12.72	126.23	118.60
35	E	549	A	N1-C6-N6	12.71	126.22	118.60
35	E	1261	A	N1-C6-N6	12.71	126.22	118.60
35	E	1082	U	P-O3'-C3'	12.70	134.94	119.70
35	E	2221	A	N1-C6-N6	12.70	126.22	118.60
35	E	450	A	N1-C6-N6	12.69	126.21	118.60
35	E	1336	A	N1-C6-N6	12.69	126.21	118.60
35	E	2209	A	N1-C6-N6	12.69	126.21	118.60
35	E	414	A	N1-C6-N6	12.68	126.21	118.60
35	E	1628	A	N1-C6-N6	12.67	126.20	118.60
35	E	1196	A	N1-C6-N6	12.64	126.19	118.60
35	E	1302	A	N1-C6-N6	12.64	126.19	118.60
35	E	604	A	N1-C6-N6	12.64	126.18	118.60
35	E	658	A	N1-C6-N6	12.62	126.17	118.60
35	E	202	C	P-O3'-C3'	12.62	134.84	119.70
35	E	226	A	N1-C6-N6	12.61	126.17	118.60
35	E	1309	A	N1-C6-N6	12.61	126.17	118.60
35	E	73	A	N1-C6-N6	12.60	126.16	118.60
35	E	1235	A	N1-C6-N6	12.60	126.16	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	105	A	N1-C6-N6	12.60	126.16	118.60
35	E	1818	A	N1-C6-N6	12.58	126.14	118.60
35	E	2234	A	N1-C6-N6	12.56	126.14	118.60
35	E	144	A	N1-C6-N6	12.56	126.13	118.60
35	E	1355	A	N1-C6-N6	12.55	126.13	118.60
35	E	1222	A	N1-C6-N6	12.55	126.13	118.60
35	E	281	A	N1-C6-N6	12.54	126.12	118.60
35	E	121	A	N1-C6-N6	12.53	126.12	118.60
35	E	1275	A	N1-C6-N6	12.53	126.12	118.60
35	E	1679	A	N1-C6-N6	12.53	126.12	118.60
35	E	62	A	N1-C6-N6	12.53	126.12	118.60
35	E	111	A	N1-C6-N6	12.52	126.11	118.60
35	E	1188	C	P-O5'-C5'	12.52	140.94	120.90
35	E	2047	A	N1-C6-N6	12.51	126.11	118.60
35	E	1241	A	N1-C6-N6	12.51	126.11	118.60
35	E	2234	A	P-O3'-C3'	12.50	134.70	119.70
35	E	814	C	P-O3'-C3'	12.50	134.70	119.70
35	E	1185	A	N1-C6-N6	12.49	126.10	118.60
35	E	78	A	N1-C6-N6	12.49	126.09	118.60
35	E	1951	A	N1-C6-N6	12.49	126.09	118.60
35	E	1308	A	N1-C6-N6	12.48	126.09	118.60
35	E	1657	A	N1-C6-N6	12.48	126.09	118.60
35	E	1732	A	N1-C6-N6	12.48	126.09	118.60
35	E	1681	A	N1-C6-N6	12.47	126.08	118.60
35	E	381	A	N1-C6-N6	12.47	126.08	118.60
35	E	2200	A	N1-C6-N6	12.47	126.08	118.60
35	E	392	A	N1-C6-N6	12.47	126.08	118.60
35	E	472	A	N1-C6-N6	12.46	126.08	118.60
35	E	2288	A	N1-C6-N6	12.45	126.07	118.60
35	E	1286	A	N1-C6-N6	12.45	126.07	118.60
35	E	2001	A	N1-C6-N6	12.45	126.07	118.60
35	E	251	A	N1-C6-N6	12.44	126.06	118.60
35	E	1314	A	N1-C6-N6	12.44	126.06	118.60
35	E	935	A	P-O3'-C3'	12.44	134.62	119.70
35	E	505	A	N1-C6-N6	12.43	126.06	118.60
35	E	1279	A	N1-C6-N6	12.43	126.06	118.60
35	E	799	A	N1-C6-N6	12.42	126.05	118.60
35	E	1609	A	N1-C6-N6	12.42	126.05	118.60
35	E	1574	A	N1-C6-N6	12.42	126.05	118.60
35	E	1553	A	N1-C6-N6	12.41	126.05	118.60
35	E	2145	A	N1-C6-N6	12.40	126.04	118.60
35	E	2202	A	N1-C6-N6	12.40	126.04	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	852	A	N1-C6-N6	12.40	126.04	118.60
35	E	581	A	N1-C6-N6	12.40	126.04	118.60
35	E	475	A	N1-C6-N6	12.39	126.04	118.60
35	E	588	A	N1-C6-N6	12.39	126.04	118.60
35	E	1086	A	N1-C6-N6	12.38	126.03	118.60
35	E	1706	A	N1-C6-N6	12.37	126.02	118.60
35	E	123	A	N1-C6-N6	12.36	126.02	118.60
35	E	349	A	N1-C6-N6	12.36	126.02	118.60
35	E	2088	A	N1-C6-N6	12.36	126.01	118.60
35	E	1192	A	P-O3'-C3'	12.35	134.52	119.70
35	E	1710	A	N1-C6-N6	12.35	126.01	118.60
35	E	1936	A	N1-C6-N6	12.35	126.01	118.60
35	E	831	A	N1-C6-N6	12.34	126.00	118.60
35	E	639	A	N1-C6-N6	12.34	126.00	118.60
35	E	509	A	N1-C6-N6	12.34	126.00	118.60
35	E	215	A	N1-C6-N6	12.33	126.00	118.60
35	E	406	A	N1-C6-N6	12.33	126.00	118.60
35	E	1330	A	N1-C6-N6	12.33	126.00	118.60
35	E	785	A	N1-C6-N6	12.33	126.00	118.60
35	E	704	A	N1-C6-N6	12.32	125.99	118.60
35	E	190	A	N1-C6-N6	12.31	125.98	118.60
35	E	287	A	N1-C6-N6	12.30	125.98	118.60
35	E	872	A	N1-C6-N6	12.30	125.98	118.60
35	E	1794	A	N1-C6-N6	12.29	125.98	118.60
35	E	788	A	N1-C6-N6	12.29	125.97	118.60
35	E	1704	A	N1-C6-N6	12.29	125.97	118.60
35	E	1768	A	N1-C6-N6	12.28	125.97	118.60
35	E	1781	A	N1-C6-N6	12.28	125.97	118.60
35	E	241	A	N1-C6-N6	12.27	125.96	118.60
35	E	647	A	N1-C6-N6	12.27	125.96	118.60
35	E	599	A	N1-C6-N6	12.27	125.96	118.60
35	E	764	A	N1-C6-N6	12.26	125.95	118.60
35	E	522	A	N1-C6-N6	12.26	125.95	118.60
35	E	1797	A	N1-C6-N6	12.25	125.95	118.60
35	E	2046	A	N1-C6-N6	12.25	125.95	118.60
35	E	2262	A	N1-C6-N6	12.25	125.95	118.60
35	E	257	A	N1-C6-N6	12.25	125.95	118.60
35	E	569	A	N1-C6-N6	12.25	125.95	118.60
35	E	653	A	N1-C6-N6	12.25	125.95	118.60
35	E	432	A	N1-C6-N6	12.24	125.95	118.60
35	E	703	A	N1-C6-N6	12.24	125.95	118.60
35	E	1259	A	N1-C6-N6	12.24	125.95	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2111	A	N1-C6-N6	12.24	125.95	118.60
35	E	1265	A	N1-C6-N6	12.23	125.94	118.60
35	E	314	A	N1-C6-N6	12.22	125.94	118.60
35	E	1217	A	N1-C6-N6	12.22	125.93	118.60
35	E	438	A	N1-C6-N6	12.22	125.93	118.60
35	E	1192	A	N1-C6-N6	12.22	125.93	118.60
35	E	304	A	N1-C6-N6	12.22	125.93	118.60
35	E	1561	A	N1-C6-N6	12.21	125.93	118.60
35	E	256	A	N1-C6-N6	12.21	125.93	118.60
35	E	1292	A	N1-C6-N6	12.21	125.93	118.60
35	E	778	A	N1-C6-N6	12.21	125.92	118.60
35	E	348	A	N1-C6-N6	12.20	125.92	118.60
35	E	655	A	N1-C6-N6	12.20	125.92	118.60
35	E	1832	A	N1-C6-N6	12.20	125.92	118.60
35	E	2048	A	N1-C6-N6	12.20	125.92	118.60
35	E	1822	A	N1-C6-N6	12.20	125.92	118.60
35	E	576	A	N1-C6-N6	12.19	125.91	118.60
35	E	10	G	N1-C6-O6	12.19	127.21	119.90
35	E	1661	A	N1-C6-N6	12.19	125.91	118.60
35	E	161	A	N1-C6-N6	12.18	125.91	118.60
35	E	454	A	N1-C6-N6	12.18	125.91	118.60
35	E	1205	A	N1-C6-N6	12.18	125.91	118.60
35	E	742	A	N1-C6-N6	12.18	125.91	118.60
35	E	1215	A	N1-C6-N6	12.18	125.91	118.60
35	E	11	A	N1-C6-N6	12.17	125.90	118.60
35	E	710	A	N1-C6-N6	12.17	125.90	118.60
35	E	1913	U	P-O3'-C3'	12.17	134.30	119.70
35	E	1676	A	N1-C6-N6	12.16	125.90	118.60
35	E	894	A	N1-C6-N6	12.16	125.89	118.60
35	E	2167	A	N1-C6-N6	12.16	125.89	118.60
35	E	1258	A	N1-C6-N6	12.15	125.89	118.60
35	E	1176	A	N1-C6-N6	12.15	125.89	118.60
35	E	1619	A	N1-C6-N6	12.15	125.89	118.60
35	E	417	A	N1-C6-N6	12.14	125.89	118.60
35	E	2031	A	N1-C6-N6	12.14	125.89	118.60
35	E	1764	A	N1-C6-N6	12.14	125.88	118.60
35	E	168	A	N1-C6-N6	12.12	125.88	118.60
35	E	845	A	N1-C6-N6	12.12	125.88	118.60
35	E	728	A	N1-C6-N6	12.12	125.87	118.60
35	E	884	A	N1-C6-N6	12.12	125.87	118.60
35	E	371	A	N1-C6-N6	12.12	125.87	118.60
35	E	1385	A	N1-C6-N6	12.11	125.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1592	A	N1-C6-N6	12.11	125.87	118.60
35	E	28	A	N1-C6-N6	12.11	125.87	118.60
35	E	2036	A	N1-C6-N6	12.11	125.87	118.60
35	E	2083	A	N1-C6-N6	12.11	125.86	118.60
35	E	142	A	N1-C6-N6	12.11	125.86	118.60
35	E	592	A	N1-C6-N6	12.10	125.86	118.60
35	E	826	A	N1-C6-N6	12.10	125.86	118.60
35	E	1362	A	N1-C6-N6	12.10	125.86	118.60
35	E	1611	A	N1-C6-N6	12.10	125.86	118.60
35	E	2299	A	N1-C6-N6	12.10	125.86	118.60
35	E	65	A	N1-C6-N6	12.10	125.86	118.60
35	E	1825	A	N1-C6-N6	12.10	125.86	118.60
35	E	1526	A	N1-C6-N6	12.09	125.86	118.60
35	E	783	A	N1-C6-N6	12.09	125.85	118.60
35	E	1865	A	N1-C6-N6	12.09	125.85	118.60
35	E	586	A	N1-C6-N6	12.09	125.85	118.60
35	E	659	A	N1-C6-N6	12.08	125.85	118.60
35	E	1270	A	N1-C6-N6	12.08	125.85	118.60
35	E	875	A	N1-C6-N6	12.08	125.85	118.60
35	E	245	A	N1-C6-N6	12.07	125.84	118.60
35	E	916	A	N1-C6-N6	12.07	125.84	118.60
35	E	2294	A	N1-C6-N6	12.07	125.84	118.60
35	E	577	A	N1-C6-N6	12.07	125.84	118.60
35	E	503	A	N1-C6-N6	12.06	125.84	118.60
35	E	2089	A	N1-C6-N6	12.06	125.83	118.60
35	E	809	A	N1-C6-N6	12.05	125.83	118.60
35	E	2076	A	N1-C6-N6	12.05	125.83	118.60
35	E	26	A	N1-C6-N6	12.05	125.83	118.60
35	E	935	A	N1-C6-N6	12.04	125.83	118.60
35	E	974	A	N1-C6-N6	12.04	125.83	118.60
35	E	124	A	N1-C6-N6	12.04	125.82	118.60
35	E	507	A	N1-C6-N6	12.04	125.82	118.60
35	E	977	A	N1-C6-N6	12.04	125.82	118.60
35	E	2026	A	N1-C6-N6	12.04	125.82	118.60
35	E	863	A	N1-C6-N6	12.04	125.82	118.60
35	E	1175	A	N1-C6-N6	12.04	125.82	118.60
35	E	2283	A	N1-C6-N6	12.03	125.82	118.60
35	E	990	A	N1-C6-N6	12.03	125.82	118.60
35	E	506	A	N1-C6-N6	12.02	125.81	118.60
35	E	2189	A	N1-C6-N6	12.02	125.81	118.60
35	E	610	A	N1-C6-N6	12.02	125.81	118.60
35	E	246	A	N1-C6-N6	12.02	125.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	295	A	N1-C6-N6	12.02	125.81	118.60
35	E	891	U	P-O3'-C3'	12.02	134.12	119.70
35	E	386	A	N1-C6-N6	12.01	125.81	118.60
35	E	833	A	N1-C6-N6	12.01	125.81	118.60
35	E	2216	A	N1-C6-N6	12.01	125.81	118.60
35	E	2	A	N1-C6-N6	12.01	125.81	118.60
35	E	595	A	N1-C6-N6	12.01	125.80	118.60
35	E	675	A	N1-C6-N6	12.01	125.80	118.60
35	E	2126	A	N1-C6-N6	12.01	125.80	118.60
35	E	905	A	N1-C6-N6	12.00	125.80	118.60
35	E	1255	A	N1-C6-N6	12.00	125.80	118.60
35	E	2272	A	N1-C6-N6	12.00	125.80	118.60
35	E	504	A	N1-C6-N6	12.00	125.80	118.60
35	E	499	A	N1-C6-N6	11.99	125.80	118.60
35	E	2267	A	N1-C6-N6	11.99	125.80	118.60
35	E	587	A	N1-C6-N6	11.99	125.79	118.60
35	E	698	C	P-O3'-C3'	11.99	134.08	119.70
35	E	444	A	N1-C6-N6	11.98	125.79	118.60
35	E	915	A	N1-C6-N6	11.98	125.79	118.60
35	E	1984	A	N1-C6-N6	11.98	125.79	118.60
35	E	1180	A	N1-C6-N6	11.98	125.79	118.60
35	E	2011	A	N1-C6-N6	11.98	125.79	118.60
35	E	2135	A	N1-C6-N6	11.98	125.79	118.60
35	E	1903	A	N1-C6-N6	11.97	125.78	118.60
35	E	858	A	N1-C6-N6	11.97	125.78	118.60
35	E	300	A	N1-C6-N6	11.97	125.78	118.60
35	E	1368	A	N1-C6-N6	11.97	125.78	118.60
35	E	1633	A	N1-C6-N6	11.97	125.78	118.60
35	E	1529	A	N1-C6-N6	11.96	125.78	118.60
35	E	1902	G	P-O3'-C3'	11.96	134.06	119.70
35	E	2260	A	N1-C6-N6	11.96	125.78	118.60
35	E	2037	A	N1-C6-N6	11.96	125.78	118.60
35	E	979	G	N1-C6-O6	11.96	127.08	119.90
35	E	1353	A	N1-C6-N6	11.96	125.77	118.60
35	E	765	A	N1-C6-N6	11.95	125.77	118.60
35	E	1960	A	N1-C6-N6	11.95	125.77	118.60
35	E	1327	A	N1-C6-N6	11.95	125.77	118.60
35	E	141	A	N1-C6-N6	11.95	125.77	118.60
35	E	516	A	N1-C6-N6	11.95	125.77	118.60
35	E	1087	A	N1-C6-N6	11.94	125.77	118.60
35	E	68	A	N1-C6-N6	11.94	125.77	118.60
35	E	531	A	N1-C6-N6	11.94	125.77	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	781	A	N1-C6-N6	11.94	125.76	118.60
35	E	598	A	N1-C6-N6	11.94	125.76	118.60
35	E	1539	A	N1-C6-N6	11.94	125.76	118.60
35	E	1568	A	N1-C6-N6	11.93	125.76	118.60
35	E	40	A	N1-C6-N6	11.93	125.76	118.60
35	E	242	A	N1-C6-N6	11.93	125.76	118.60
35	E	498	A	N1-C6-N6	11.93	125.76	118.60
35	E	467	A	N1-C6-N6	11.92	125.75	118.60
35	E	2259	A	N1-C6-N6	11.92	125.75	118.60
35	E	596	A	N1-C6-N6	11.92	125.75	118.60
35	E	2065	A	N1-C6-N6	11.92	125.75	118.60
35	E	107	A	N1-C6-N6	11.92	125.75	118.60
35	E	782	A	N1-C6-N6	11.92	125.75	118.60
35	E	793	A	N1-C6-N6	11.91	125.75	118.60
35	E	960	A	N1-C6-N6	11.91	125.75	118.60
35	E	912	A	N1-C6-N6	11.91	125.75	118.60
35	E	562	A	N1-C6-N6	11.91	125.74	118.60
35	E	1370	A	N1-C6-N6	11.90	125.74	118.60
35	E	1333	A	N1-C6-N6	11.90	125.74	118.60
35	E	525	A	N1-C6-N6	11.90	125.74	118.60
35	E	2005	A	N1-C6-N6	11.90	125.74	118.60
35	E	1343	A	N1-C6-N6	11.89	125.74	118.60
35	E	529	A	N1-C6-N6	11.89	125.73	118.60
35	E	2199	A	N1-C6-N6	11.89	125.73	118.60
35	E	81	A	N1-C6-N6	11.89	125.73	118.60
35	E	1264	A	N1-C6-N6	11.89	125.73	118.60
35	E	1189	A	N1-C6-N6	11.89	125.73	118.60
35	E	1888	A	N1-C6-N6	11.89	125.73	118.60
35	E	1996	A	N1-C6-N6	11.88	125.73	118.60
35	E	47	A	N1-C6-N6	11.88	125.73	118.60
35	E	352	A	N1-C6-N6	11.88	125.73	118.60
35	E	634	A	N1-C6-N6	11.88	125.73	118.60
35	E	1743	A	N1-C6-N6	11.88	125.73	118.60
35	E	1631	A	N1-C6-N6	11.87	125.72	118.60
35	E	1733	A	N1-C6-N6	11.87	125.72	118.60
35	E	2238	A	N1-C6-N6	11.87	125.72	118.60
35	E	792	G	N1-C6-O6	11.87	127.02	119.90
35	E	1662	A	N1-C6-N6	11.87	125.72	118.60
35	E	1920	A	N1-C6-N6	11.87	125.72	118.60
35	E	1999	A	N1-C6-N6	11.87	125.72	118.60
35	E	64	A	N1-C6-N6	11.86	125.72	118.60
35	E	501	A	N1-C6-N6	11.87	125.72	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	607	A	N1-C6-N6	11.87	125.72	118.60
35	E	769	A	N1-C6-N6	11.86	125.72	118.60
35	E	571	A	N1-C6-N6	11.86	125.72	118.60
35	E	2192	A	N1-C6-N6	11.86	125.72	118.60
35	E	82	A	N1-C6-N6	11.86	125.72	118.60
35	E	184	A	N1-C6-N6	11.86	125.71	118.60
35	E	181	A	N1-C6-N6	11.86	125.71	118.60
35	E	775	A	N1-C6-N6	11.86	125.71	118.60
35	E	898	A	N1-C6-N6	11.86	125.71	118.60
35	E	97	A	N1-C6-N6	11.85	125.71	118.60
35	E	2103	A	N1-C6-N6	11.85	125.71	118.60
35	E	1610	A	N1-C6-N6	11.85	125.71	118.60
35	E	527	A	N1-C6-N6	11.84	125.71	118.60
35	E	425	A	N1-C6-N6	11.83	125.70	118.60
35	E	861	A	N1-C6-N6	11.83	125.70	118.60
35	E	180	A	N1-C6-N6	11.83	125.70	118.60
35	E	624	A	N1-C6-N6	11.83	125.70	118.60
35	E	690	A	N1-C6-N6	11.83	125.70	118.60
35	E	1651	A	N1-C6-N6	11.83	125.70	118.60
35	E	1689	A	N1-C6-N6	11.83	125.70	118.60
35	E	2273	A	N1-C6-N6	11.83	125.70	118.60
35	E	992	A	N1-C6-N6	11.83	125.70	118.60
35	E	1987	A	N1-C6-N6	11.83	125.69	118.60
35	E	19	A	N1-C6-N6	11.82	125.69	118.60
35	E	648	A	N1-C6-N6	11.82	125.69	118.60
35	E	1975	A	N1-C6-N6	11.82	125.69	118.60
35	E	917	A	N1-C6-N6	11.82	125.69	118.60
35	E	177	A	N1-C6-N6	11.82	125.69	118.60
35	E	1312	A	N1-C6-N6	11.81	125.69	118.60
35	E	959	A	N1-C6-N6	11.81	125.69	118.60
35	E	447	A	N1-C6-N6	11.80	125.68	118.60
35	E	585	A	N1-C6-N6	11.80	125.68	118.60
35	E	249	A	N1-C6-N6	11.80	125.68	118.60
35	E	2035	A	N1-C6-N6	11.80	125.68	118.60
35	E	112	A	N1-C6-N6	11.80	125.68	118.60
35	E	902	A	N1-C6-N6	11.80	125.68	118.60
35	E	1878	A	N1-C6-N6	11.80	125.68	118.60
35	E	865	A	N1-C6-N6	11.79	125.67	118.60
35	E	1248	A	N1-C6-N6	11.79	125.67	118.60
35	E	1313	A	N1-C6-N6	11.79	125.67	118.60
35	E	250	A	N1-C6-N6	11.79	125.67	118.60
35	E	502	A	N1-C6-N6	11.79	125.67	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	500	A	N1-C6-N6	11.78	125.67	118.60
35	E	167	A	N1-C6-N6	11.78	125.67	118.60
35	E	1724	A	N1-C6-N6	11.78	125.67	118.60
35	E	1992	A	N1-C6-N6	11.78	125.67	118.60
35	E	2008	A	N1-C6-N6	11.78	125.67	118.60
35	E	493	A	N1-C6-N6	11.78	125.67	118.60
35	E	2055	A	N1-C6-N6	11.77	125.66	118.60
35	E	254	A	N1-C6-N6	11.77	125.66	118.60
35	E	694	A	N1-C6-N6	11.77	125.66	118.60
35	E	2274	A	N1-C6-N6	11.77	125.66	118.60
35	E	1919	A	N1-C6-N6	11.77	125.66	118.60
35	E	735	A	N1-C6-N6	11.76	125.66	118.60
35	E	673	A	N1-C6-N6	11.76	125.66	118.60
35	E	718	A	N1-C6-N6	11.76	125.66	118.60
35	E	231	A	N1-C6-N6	11.76	125.65	118.60
35	E	2069	A	N1-C6-N6	11.76	125.65	118.60
35	E	1323	A	N1-C6-N6	11.75	125.65	118.60
35	E	330	A	N1-C6-N6	11.75	125.65	118.60
35	E	523	A	N1-C6-N6	11.74	125.65	118.60
35	E	779	A	N1-C6-N6	11.74	125.65	118.60
35	E	913	A	N1-C6-N6	11.74	125.65	118.60
35	E	961	A	N1-C6-N6	11.74	125.64	118.60
35	E	51	A	N1-C6-N6	11.74	125.64	118.60
35	E	269	A	N1-C6-N6	11.74	125.64	118.60
35	E	345	A	N1-C6-N6	11.73	125.64	118.60
35	E	829	C	P-O3'-C3'	11.73	133.78	119.70
35	E	185	A	N1-C6-N6	11.73	125.64	118.60
35	E	1197	A	N1-C6-N6	11.73	125.64	118.60
35	E	43	A	N1-C6-N6	11.72	125.63	118.60
35	E	786	A	N1-C6-N6	11.72	125.63	118.60
35	E	812	A	N1-C6-N6	11.72	125.63	118.60
35	E	2039	A	N1-C6-N6	11.72	125.63	118.60
35	E	1942	A	N1-C6-N6	11.72	125.63	118.60
35	E	149	A	N1-C6-N6	11.72	125.63	118.60
35	E	771	A	N1-C6-N6	11.71	125.63	118.60
35	E	932	G	N1-C6-O6	11.71	126.93	119.90
35	E	972	A	N1-C6-N6	11.71	125.63	118.60
35	E	1620	A	N1-C6-N6	11.71	125.63	118.60
35	E	2315	A	N1-C6-N6	11.71	125.62	118.60
35	E	55	A	N1-C6-N6	11.70	125.62	118.60
35	E	2134	A	N1-C6-N6	11.70	125.62	118.60
35	E	2169	A	N1-C6-N6	11.70	125.62	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	866	A	N1-C6-N6	11.70	125.62	118.60
35	E	2104	A	N1-C6-N6	11.70	125.62	118.60
35	E	1803	A	N1-C6-N6	11.69	125.61	118.60
35	E	1961	A	N1-C6-N6	11.69	125.61	118.60
35	E	122	A	N1-C6-N6	11.68	125.61	118.60
35	E	1601	A	N1-C6-N6	11.68	125.61	118.60
35	E	729	C	P-O3'-C3'	11.68	133.71	119.70
35	E	1698	A	N1-C6-N6	11.68	125.61	118.60
35	E	2284	A	N1-C6-N6	11.68	125.61	118.60
35	E	520	A	N1-C6-N6	11.67	125.60	118.60
35	E	689	A	N1-C6-N6	11.67	125.60	118.60
35	E	784	A	N1-C6-N6	11.66	125.60	118.60
35	E	102	A	N1-C6-N6	11.66	125.59	118.60
35	E	1937	A	N1-C6-N6	11.65	125.59	118.60
35	E	1348	A	N1-C6-N6	11.65	125.59	118.60
35	E	901	A	N1-C6-N6	11.64	125.59	118.60
35	E	2113	G	N1-C6-O6	11.64	126.89	119.90
35	E	125	A	N1-C6-N6	11.64	125.58	118.60
35	E	1695	A	N1-C6-N6	11.64	125.58	118.60
35	E	817	A	N1-C6-N6	11.63	125.58	118.60
35	E	1378	A	N1-C6-N6	11.63	125.58	118.60
35	E	993	A	N1-C6-N6	11.63	125.58	118.60
35	E	1599	A	N1-C6-N6	11.63	125.58	118.60
35	E	1939	A	N1-C6-N6	11.62	125.58	118.60
35	E	1566	A	N1-C6-N6	11.62	125.57	118.60
35	E	39	A	N1-C6-N6	11.61	125.57	118.60
35	E	900	A	N1-C6-N6	11.61	125.56	118.60
35	E	2271	A	N1-C6-N6	11.61	125.56	118.60
35	E	2300	A	N1-C6-N6	11.60	125.56	118.60
35	E	2312	A	N1-C6-N6	11.59	125.55	118.60
35	E	1812	A	N1-C6-N6	11.58	125.55	118.60
35	E	885	U	P-O3'-C3'	11.56	133.57	119.70
35	E	1552	A	N1-C6-N6	11.55	125.53	118.60
35	E	1671	A	N1-C6-N6	11.55	125.53	118.60
35	E	2159	A	N1-C6-N6	11.55	125.53	118.60
35	E	216	A	N1-C6-N6	11.54	125.52	118.60
35	E	1076	C	P-O3'-C3'	11.54	133.54	119.70
35	E	1340	A	N1-C6-N6	11.53	125.52	118.60
35	E	2227	U	P-O3'-C3'	11.53	133.53	119.70
35	E	532	G	P-O3'-C3'	11.52	133.52	119.70
35	E	674	A	N1-C6-N6	11.51	125.51	118.60
35	E	351	A	N1-C6-N6	11.50	125.50	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	367	A	N1-C6-N6	11.50	125.50	118.60
35	E	162	A	N1-C6-N6	11.49	125.50	118.60
35	E	1630	A	N1-C6-N6	11.49	125.50	118.60
35	E	1328	A	N1-C6-N6	11.48	125.49	118.60
35	E	1081	G	P-O3'-C3'	11.48	133.48	119.70
35	E	148	G	N1-C6-O6	11.48	126.79	119.90
35	E	463	A	N1-C6-N6	11.48	125.49	118.60
35	E	2239	A	N1-C6-N6	11.48	125.49	118.60
35	E	446	A	N1-C6-N6	11.47	125.48	118.60
35	E	90	A	N1-C6-N6	11.46	125.48	118.60
35	E	360	A	N1-C6-N6	11.46	125.47	118.60
35	E	2063	A	N1-C6-N6	11.44	125.47	118.60
35	E	2056	A	N1-C6-N6	11.44	125.47	118.60
35	E	719	G	P-O3'-C3'	11.44	133.42	119.70
35	E	967	A	N1-C6-N6	11.43	125.46	118.60
35	E	1868	G	N1-C6-O6	11.43	126.76	119.90
35	E	968	U	P-O3'-C3'	11.42	133.40	119.70
35	E	1085	G	N1-C6-O6	11.42	126.75	119.90
35	E	1377	A	N1-C6-N6	11.42	125.45	118.60
35	E	2034	A	N1-C6-N6	11.41	125.45	118.60
35	E	288	A	N1-C6-N6	11.41	125.44	118.60
35	E	835	G	N1-C6-O6	11.40	126.74	119.90
35	E	1365	A	N1-C6-N6	11.39	125.43	118.60
35	E	950	G	N1-C6-O6	11.38	126.73	119.90
35	E	944	G	N1-C6-O6	11.38	126.72	119.90
35	E	621	A	N1-C6-N6	11.36	125.42	118.60
35	E	2038	G	N1-C6-O6	11.36	126.72	119.90
35	E	980	G	N1-C6-O6	11.32	126.69	119.90
35	E	485	A	N1-C6-N6	11.32	125.39	118.60
35	E	706	G	P-O5'-C5'	11.32	139.00	120.90
35	E	2007	A	N1-C6-N6	11.31	125.39	118.60
35	E	2213	G	P-O3'-C3'	11.31	133.27	119.70
35	E	777	A	N1-C6-N6	11.30	125.38	118.60
35	E	1305	A	N1-C6-N6	11.30	125.38	118.60
35	E	877	A	N1-C6-N6	11.29	125.38	118.60
35	E	316	A	N1-C6-N6	11.29	125.37	118.60
35	E	2107	A	N1-C6-N6	11.27	125.36	118.60
35	E	2204	A	N1-C6-N6	11.26	125.36	118.60
35	E	709	C	P-O3'-C3'	11.25	133.20	119.70
35	E	2148	A	N1-C6-N6	11.25	125.35	118.60
35	E	2110	A	N1-C6-N6	11.21	125.33	118.60
35	E	1338	A	N1-C6-N6	11.20	125.32	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1746	G	N1-C6-O6	11.20	126.62	119.90
35	E	940	U	P-O3'-C3'	11.20	133.14	119.70
35	E	1242	A	N1-C6-N6	11.19	125.31	118.60
35	E	1250	A	N1-C6-N6	11.18	125.31	118.60
35	E	237	A	N1-C6-N6	11.17	125.30	118.60
35	E	172	A	N1-C6-N6	11.17	125.30	118.60
35	E	1789	A	N1-C6-N6	11.16	125.30	118.60
35	E	1664	A	N1-C6-N6	11.16	125.30	118.60
35	E	575	A	N1-C6-N6	11.13	125.28	118.60
35	E	684	A	N1-C6-N6	11.13	125.28	118.60
35	E	1584	A	N1-C6-N6	11.12	125.27	118.60
35	E	484	A	N1-C6-N6	11.12	125.27	118.60
35	E	609	A	N1-C6-N6	11.12	125.27	118.60
35	E	953	G	N1-C6-O6	11.12	126.57	119.90
35	E	1808	G	N1-C6-O6	11.09	126.55	119.90
35	E	633	A	N1-C6-N6	11.06	125.24	118.60
35	E	979	G	C5-C6-O6	-11.05	121.97	128.60
35	E	2113	G	C5-C6-O6	-11.05	121.97	128.60
35	E	535	G	N1-C6-O6	10.98	126.49	119.90
35	E	2224	G	N1-C6-O6	10.98	126.49	119.90
35	E	63	G	N1-C6-O6	10.98	126.49	119.90
35	E	285	A	N1-C6-N6	10.97	125.18	118.60
35	E	1670	A	N1-C6-N6	10.89	125.14	118.60
35	E	2240	A	N1-C6-N6	10.89	125.13	118.60
35	E	862	A	N1-C6-N6	10.88	125.12	118.60
35	E	975	U	OP2-P-O3'	-10.86	81.31	105.20
35	E	788	A	P-O3'-C3'	10.83	132.70	119.70
35	E	335	G	N1-C6-O6	10.83	126.40	119.90
35	E	23	G	N1-C6-O6	10.80	126.38	119.90
35	E	822	A	N1-C6-N6	10.79	125.08	118.60
35	E	71	G	N1-C6-O6	10.79	126.37	119.90
35	E	931	G	N1-C6-O6	10.77	126.36	119.90
35	E	2131	A	N1-C6-N6	10.76	125.06	118.60
35	E	169	G	N1-C6-O6	10.75	126.35	119.90
35	E	1953	G	N1-C6-O6	10.75	126.35	119.90
35	E	1854	G	N1-C6-O6	10.74	126.35	119.90
35	E	1361	A	N1-C6-N6	10.74	125.05	118.60
35	E	2006	A	N1-C6-N6	10.74	125.05	118.60
35	E	276	G	N1-C6-O6	10.73	126.34	119.90
35	E	2051	C	P-O3'-C3'	10.73	132.58	119.70
35	E	263	G	N1-C6-O6	10.73	126.34	119.90
35	E	1384	G	N1-C6-O6	10.73	126.34	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	530	G	N1-C6-O6	10.72	126.33	119.90
35	E	567	G	N1-C6-O6	10.72	126.33	119.90
35	E	255	A	N1-C6-N6	10.71	125.03	118.60
35	E	1605	A	N1-C6-N6	10.71	125.03	118.60
35	E	1749	G	N1-C6-O6	10.69	126.31	119.90
35	E	1886	G	P-O3'-C3'	10.68	132.51	119.70
35	E	1606	A	N1-C6-N6	10.63	124.98	118.60
35	E	521	A	N1-C6-N6	10.62	124.97	118.60
35	E	100	A	N1-C6-N6	10.62	124.97	118.60
35	E	10	G	C5-C6-O6	-10.61	122.24	128.60
35	E	724	A	C5-C6-N1	-10.61	112.40	117.70
35	E	1644	G	N1-C6-O6	10.60	126.26	119.90
35	E	1625	A	N1-C6-N6	10.60	124.96	118.60
35	E	394	G	N1-C6-O6	10.59	126.26	119.90
35	E	291	G	N1-C6-O6	10.59	126.25	119.90
35	E	315	A	N1-C6-N6	10.57	124.94	118.60
35	E	2122	G	N1-C6-O6	10.55	126.23	119.90
35	E	1186	U	P-O3'-C3'	10.55	132.36	119.70
35	E	2165	A	N1-C6-N6	10.54	124.92	118.60
35	E	1898	G	N1-C6-O6	10.53	126.22	119.90
35	E	1306	A	N1-C6-N6	10.53	124.92	118.60
35	E	1547	A	N1-C6-N6	10.52	124.91	118.60
35	E	1873	G	N1-C6-O6	10.50	126.20	119.90
35	E	133	G	N1-C6-O6	10.47	126.19	119.90
35	E	1861	A	N1-C6-N6	10.47	124.88	118.60
35	E	983	C	O4'-C1'-N1	10.46	116.57	108.20
35	E	488	G	N1-C6-O6	10.45	126.17	119.90
35	E	1598	G	N1-C6-O6	10.45	126.17	119.90
35	E	53	G	N1-C6-O6	10.45	126.17	119.90
35	E	712	U	P-O3'-C3'	10.45	132.24	119.70
35	E	79	G	N1-C6-O6	10.44	126.16	119.90
35	E	2017	G	P-O3'-C3'	10.44	132.22	119.70
35	E	1824	A	N1-C6-N6	10.43	124.86	118.60
35	E	1555	G	N1-C6-O6	10.43	126.16	119.90
35	E	1277	G	N1-C6-O6	10.41	126.15	119.90
35	E	2296	G	N1-C6-O6	10.41	126.14	119.90
35	E	524	G	N1-C6-O6	10.40	126.14	119.90
35	E	2289	G	N1-C6-O6	10.39	126.13	119.90
35	E	895	A	N1-C6-N6	10.38	124.83	118.60
35	E	2120	A	N1-C6-N6	10.37	124.82	118.60
35	E	1871	G	N1-C6-O6	10.36	126.12	119.90
35	E	420	G	N1-C6-O6	10.36	126.11	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	555	G	N1-C6-O6	10.35	126.11	119.90
35	E	766	C	O4'-C1'-N1	10.34	116.47	108.20
35	E	106	G	N1-C6-O6	10.34	126.10	119.90
35	E	2043	G	N1-C6-O6	10.34	126.10	119.90
35	E	299	A	N1-C6-N6	10.33	124.80	118.60
35	E	1210	G	N1-C6-O6	10.33	126.10	119.90
35	E	855	G	N1-C6-O6	10.32	126.09	119.90
35	E	2249	A	N1-C6-N6	10.32	124.79	118.60
35	E	1233	A	N1-C6-N6	10.31	124.79	118.60
35	E	857	G	N1-C6-O6	10.29	126.08	119.90
35	E	2045	A	N1-C6-N6	10.29	124.78	118.60
35	E	661	G	N1-C6-O6	10.29	126.07	119.90
35	E	2214	A	N1-C6-N6	10.29	124.77	118.60
35	E	1808	G	C5-C6-O6	-10.28	122.43	128.60
35	E	2195	G	N1-C6-O6	10.27	126.06	119.90
35	E	188	G	N1-C6-O6	10.27	126.06	119.90
35	E	2237	G	N1-C6-O6	10.27	126.06	119.90
35	E	1869	G	N1-C6-O6	10.26	126.05	119.90
35	E	702	U	O4'-C1'-N1	10.25	116.40	108.20
35	E	907	G	N1-C6-O6	10.25	126.05	119.90
35	E	711	A	C5-C6-N1	-10.25	112.58	117.70
35	E	1943	G	N1-C6-O6	10.25	126.05	119.90
35	E	1182	G	N1-C6-O6	10.23	126.04	119.90
35	E	975	U	OP1-P-O3'	-10.22	82.72	105.20
35	E	1731	G	N1-C6-O6	10.22	126.03	119.90
35	E	1900	G	N1-C6-O6	10.21	126.02	119.90
35	E	970	G	N1-C6-O6	10.20	126.02	119.90
35	E	943	G	N1-C6-O6	10.19	126.02	119.90
35	E	706	G	N1-C6-O6	10.19	126.01	119.90
35	E	552	G	N1-C6-O6	10.18	126.01	119.90
35	E	541	G	N1-C6-O6	10.18	126.01	119.90
35	E	86	G	N1-C6-O6	10.17	126.00	119.90
35	E	1237	G	N1-C6-O6	10.17	126.00	119.90
35	E	1545	U	P-O3'-C3'	10.17	131.90	119.70
35	E	1367	G	N1-C6-O6	10.15	125.99	119.90
35	E	220	G	N1-C6-O6	10.15	125.99	119.90
35	E	1763	G	N1-C6-O6	10.15	125.99	119.90
35	E	223	G	N1-C6-O6	10.14	125.98	119.90
35	E	1855	G	N1-C6-O6	10.14	125.98	119.90
35	E	2139	G	N1-C6-O6	10.13	125.98	119.90
35	E	2233	G	N1-C6-O6	10.13	125.98	119.90
35	E	1927	A	N1-C6-N6	10.12	124.67	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	508	G	N1-C6-O6	10.12	125.97	119.90
35	E	347	G	N1-C6-O6	10.11	125.96	119.90
35	E	2121	G	N1-C6-O6	10.10	125.96	119.90
35	E	836	G	N1-C6-O6	10.10	125.96	119.90
35	E	403	G	N1-C6-O6	10.09	125.95	119.90
35	E	734	G	C5-C6-O6	-10.08	122.55	128.60
35	E	211	G	N1-C6-O6	10.08	125.95	119.90
35	E	6	G	N1-C6-O6	10.07	125.94	119.90
35	E	1817	G	N1-C6-O6	10.07	125.94	119.90
35	E	1577	G	N1-C6-O6	10.06	125.94	119.90
35	E	2152	C	P-O3'-C3'	10.05	131.76	119.70
35	E	943	G	C5-C6-O6	-10.04	122.58	128.60
35	E	713	G	P-O3'-C3'	10.04	131.75	119.70
35	E	204	G	N1-C6-O6	10.04	125.92	119.90
35	E	1735	G	N1-C6-O6	10.03	125.92	119.90
35	E	363	A	N1-C6-N6	10.03	124.62	118.60
35	E	517	G	N1-C6-O6	10.03	125.92	119.90
35	E	888	G	N1-C6-O6	10.02	125.91	119.90
35	E	410	G	N1-C6-O6	10.02	125.91	119.90
35	E	1274	A	N1-C6-N6	10.01	124.61	118.60
35	E	954	G	N1-C6-O6	10.00	125.90	119.90
35	E	564	G	N1-C6-O6	10.00	125.90	119.90
35	E	42	G	N1-C6-O6	9.99	125.90	119.90
35	E	651	G	N1-C6-O6	9.98	125.89	119.90
35	E	470	G	N1-C6-O6	9.97	125.88	119.90
35	E	431	G	N1-C6-O6	9.97	125.88	119.90
35	E	1549	G	N1-C6-O6	9.97	125.88	119.90
35	E	1776	G	N1-C6-O6	9.96	125.88	119.90
35	E	230	G	N1-C6-O6	9.96	125.87	119.90
35	E	7	G	N1-C6-O6	9.95	125.87	119.90
35	E	717	U	P-O3'-C3'	9.95	131.64	119.70
35	E	996	G	N1-C6-O6	9.95	125.87	119.90
35	E	2217	G	N1-C6-O6	9.94	125.86	119.90
35	E	944	G	C5-C6-O6	-9.93	122.64	128.60
35	E	1687	A	N1-C6-N6	9.93	124.56	118.60
35	E	532	G	N1-C6-O6	9.93	125.86	119.90
35	E	2265	G	N1-C6-O6	9.93	125.86	119.90
35	E	2304	G	N1-C6-O6	9.93	125.86	119.90
35	E	1852	G	N1-C6-O6	9.92	125.85	119.90
35	E	1870	G	N1-C6-O6	9.92	125.85	119.90
35	E	785	A	P-O3'-C3'	9.92	131.60	119.70
35	E	1608	G	N1-C6-O6	9.92	125.85	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	57	G	N1-C6-O6	9.91	125.85	119.90
35	E	132	G	N1-C6-O6	9.90	125.84	119.90
35	E	1213	G	N1-C6-O6	9.90	125.84	119.90
35	E	2220	G	N1-C6-O6	9.89	125.84	119.90
35	E	205	G	N1-C6-O6	9.89	125.83	119.90
35	E	1880	U	O4'-C1'-N1	9.88	116.10	108.20
35	E	982	G	N1-C6-O6	9.87	125.82	119.90
35	E	2197	G	N1-C6-O6	9.87	125.82	119.90
35	E	473	G	N1-C6-O6	9.87	125.82	119.90
35	E	2176	G	N1-C6-O6	9.87	125.82	119.90
35	E	208	G	N1-C6-O6	9.87	125.82	119.90
35	E	835	G	C5-C6-O6	-9.87	122.68	128.60
35	E	409	G	N1-C6-O6	9.86	125.82	119.90
35	E	756	G	N1-C6-O6	9.86	125.81	119.90
35	E	2275	G	N1-C6-O6	9.86	125.82	119.90
35	E	1220	G	N1-C6-O6	9.86	125.81	119.90
35	E	1307	G	N1-C6-O6	9.86	125.81	119.90
35	E	311	G	N1-C6-O6	9.85	125.81	119.90
35	E	772	U	P-O3'-C3'	9.85	131.51	119.70
35	E	30	G	N1-C6-O6	9.84	125.81	119.90
35	E	34	G	N1-C6-O6	9.84	125.80	119.90
35	E	1381	G	N1-C6-O6	9.83	125.80	119.90
35	E	466	G	N1-C6-O6	9.83	125.80	119.90
35	E	189	G	N1-C6-O6	9.82	125.80	119.90
35	E	233	G	N1-C6-O6	9.82	125.79	119.90
35	E	963	G	N1-C6-O6	9.82	125.79	119.90
35	E	971	G	N1-C6-O6	9.82	125.79	119.90
35	E	1886	G	N1-C6-O6	9.82	125.79	119.90
35	E	109	G	N1-C6-O6	9.81	125.78	119.90
35	E	606	G	N1-C6-O6	9.81	125.78	119.90
35	E	1635	G	N1-C6-O6	9.80	125.78	119.90
35	E	1206	G	N1-C6-O6	9.79	125.78	119.90
35	E	1997	G	N1-C6-O6	9.79	125.78	119.90
35	E	413	G	N1-C6-O6	9.79	125.78	119.90
35	E	229	G	N1-C6-O6	9.79	125.77	119.90
35	E	430	G	N1-C6-O6	9.79	125.77	119.90
35	E	2127	G	N1-C6-O6	9.79	125.77	119.90
35	E	1666	G	N1-C6-O6	9.79	125.77	119.90
35	E	156	G	N1-C6-O6	9.78	125.77	119.90
35	E	1382	G	N1-C6-O6	9.78	125.77	119.90
35	E	2163	G	N1-C6-O6	9.78	125.77	119.90
35	E	514	G	N1-C6-O6	9.76	125.76	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	611	G	N1-C6-O6	9.76	125.76	119.90
35	E	1876	G	C5-C6-O6	-9.75	122.75	128.60
35	E	334	G	N1-C6-O6	9.74	125.75	119.90
35	E	395	G	N1-C6-O6	9.74	125.75	119.90
35	E	1777	G	N1-C6-O6	9.74	125.75	119.90
35	E	93	G	N1-C6-O6	9.74	125.74	119.90
35	E	1339	G	N1-C6-O6	9.74	125.74	119.90
35	E	842	G	N1-C6-O6	9.73	125.74	119.90
35	E	2278	G	N1-C6-O6	9.73	125.74	119.90
35	E	1979	G	N1-C6-O6	9.73	125.74	119.90
35	E	1594	G	N1-C6-O6	9.73	125.74	119.90
35	E	2266	G	N1-C6-O6	9.73	125.74	119.90
35	E	192	G	N1-C6-O6	9.72	125.73	119.90
35	E	451	G	N1-C6-O6	9.71	125.72	119.90
35	E	495	G	N1-C6-O6	9.69	125.72	119.90
35	E	173	A	N1-C6-N6	9.69	124.41	118.60
35	E	2222	G	N1-C6-O6	9.69	125.71	119.90
35	E	1230	G	N1-C6-O6	9.68	125.71	119.90
35	E	320	G	N1-C6-O6	9.67	125.70	119.90
35	E	2194	G	N1-C6-O6	9.67	125.70	119.90
35	E	2073	G	N1-C6-O6	9.66	125.70	119.90
35	E	2206	G	N1-C6-O6	9.65	125.69	119.90
35	E	207	G	N1-C6-O6	9.65	125.69	119.90
35	E	401	A	N1-C6-N6	9.65	124.39	118.60
35	E	1579	G	N1-C6-O6	9.64	125.69	119.90
35	E	791	G	N1-C6-O6	9.64	125.69	119.90
35	E	272	G	N1-C6-O6	9.64	125.68	119.90
35	E	1289	G	N1-C6-O6	9.64	125.68	119.90
35	E	566	G	N1-C6-O6	9.63	125.68	119.90
35	E	1329	G	N1-C6-O6	9.63	125.68	119.90
35	E	48	G	N1-C6-O6	9.63	125.68	119.90
35	E	1867	G	N1-C6-O6	9.63	125.68	119.90
35	E	2205	G	N1-C6-O6	9.63	125.68	119.90
35	E	513	G	N1-C6-O6	9.62	125.67	119.90
35	E	1793	G	N1-C6-O6	9.62	125.67	119.90
35	E	389	G	N1-C6-O6	9.62	125.67	119.90
35	E	987	G	N1-C6-O6	9.62	125.67	119.90
35	E	1085	G	C5-C6-O6	-9.61	122.83	128.60
35	E	775	A	P-O5'-C5'	9.61	136.28	120.90
35	E	1563	G	N1-C6-O6	9.61	125.67	119.90
35	E	2003	G	N1-C6-O6	9.61	125.67	119.90
35	E	1786	G	N1-C6-O6	9.61	125.66	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2295	G	N1-C6-O6	9.60	125.66	119.90
35	E	151	A	N1-C6-N6	9.60	124.36	118.60
35	E	678	G	N1-C6-O6	9.60	125.66	119.90
35	E	317	G	N1-C6-O6	9.60	125.66	119.90
35	E	1697	G	N1-C6-O6	9.60	125.66	119.90
35	E	477	G	N1-C6-O6	9.59	125.65	119.90
35	E	1216	G	N1-C6-O6	9.59	125.65	119.90
35	E	615	G	N1-C6-O6	9.57	125.64	119.90
35	E	1746	G	C5-C6-O6	-9.57	122.86	128.60
35	E	1762	G	N1-C6-O6	9.57	125.64	119.90
35	E	405	G	N1-C6-O6	9.56	125.64	119.90
35	E	1165	G	N1-C6-O6	9.55	125.63	119.90
35	E	2150	G	N1-C6-O6	9.54	125.63	119.90
35	E	199	G	N1-C6-O6	9.54	125.62	119.90
35	E	2292	G	N1-C6-O6	9.53	125.62	119.90
35	E	412	G	N1-C6-O6	9.53	125.62	119.90
35	E	633	A	P-O3'-C3'	9.53	131.13	119.70
35	E	404	G	N1-C6-O6	9.52	125.61	119.90
35	E	1349	G	N1-C6-O6	9.52	125.61	119.90
35	E	1600	A	N1-C6-N6	9.52	124.31	118.60
35	E	1749	G	C5-C6-O6	-9.52	122.89	128.60
35	E	1578	G	N1-C6-O6	9.51	125.61	119.90
35	E	616	G	N1-C6-O6	9.51	125.61	119.90
35	E	2156	G	N1-C6-O6	9.51	125.61	119.90
35	E	130	G	N1-C6-O6	9.51	125.60	119.90
35	E	157	G	N1-C6-O6	9.50	125.60	119.90
35	E	2147	U	O4'-C1'-N1	9.50	115.80	108.20
35	E	148	G	C5-C6-O6	-9.49	122.90	128.60
35	E	1922	G	N1-C6-O6	9.49	125.59	119.90
35	E	640	G	N1-C6-O6	9.49	125.59	119.90
35	E	670	G	N1-C6-O6	9.49	125.59	119.90
35	E	1332	G	N1-C6-O6	9.48	125.59	119.90
35	E	1263	G	N1-C6-O6	9.48	125.59	119.90
35	E	2208	G	N1-C6-O6	9.47	125.58	119.90
35	E	738	G	C5-C6-O6	-9.47	122.92	128.60
35	E	1326	G	N1-C6-O6	9.46	125.58	119.90
35	E	2141	G	N1-C6-O6	9.46	125.58	119.90
35	E	919	G	P-O3'-C3'	9.46	131.05	119.70
35	E	2044	G	N1-C6-O6	9.46	125.58	119.90
35	E	1319	G	N1-C6-O6	9.46	125.57	119.90
35	E	1562	G	N1-C6-O6	9.46	125.58	119.90
35	E	1705	G	N1-C6-O6	9.46	125.58	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1970	G	N1-C6-O6	9.46	125.57	119.90
35	E	708	G	N1-C6-O6	9.45	125.57	119.90
35	E	370	G	N1-C6-O6	9.45	125.57	119.90
35	E	878	G	N1-C6-O6	9.45	125.57	119.90
35	E	812	A	P-O3'-C3'	9.45	131.03	119.70
35	E	71	G	C5-C6-O6	-9.44	122.94	128.60
35	E	364	G	N1-C6-O6	9.44	125.56	119.90
35	E	568	G	N1-C6-O6	9.44	125.56	119.90
35	E	1260	G	N1-C6-O6	9.44	125.56	119.90
35	E	344	G	N1-C6-O6	9.43	125.56	119.90
35	E	76	G	N1-C6-O6	9.43	125.56	119.90
35	E	628	G	N1-C6-O6	9.42	125.55	119.90
35	E	869	G	N1-C6-O6	9.42	125.55	119.90
35	E	535	G	C5-C6-O6	-9.41	122.95	128.60
35	E	1944	G	N1-C6-O6	9.41	125.55	119.90
35	E	322	G	N1-C6-O6	9.41	125.55	119.90
35	E	664	G	N1-C6-O6	9.40	125.54	119.90
35	E	980	G	C5-C6-O6	-9.40	122.96	128.60
35	E	1856	G	N1-C6-O6	9.40	125.54	119.90
35	E	792	G	P-O3'-C3'	9.39	130.97	119.70
35	E	355	G	N1-C6-O6	9.39	125.53	119.90
35	E	733	G	N1-C6-O6	9.38	125.53	119.90
35	E	238	G	N1-C6-O6	9.38	125.53	119.90
35	E	880	A	N1-C6-N6	9.38	124.23	118.60
35	E	2241	G	N1-C6-O6	9.38	125.53	119.90
35	E	1910	G	N1-C6-O6	9.37	125.52	119.90
35	E	139	G	N1-C6-O6	9.37	125.52	119.90
35	E	705	G	N1-C6-O6	9.36	125.51	119.90
35	E	2118	G	N1-C6-O6	9.36	125.51	119.90
35	E	908	G	N1-C6-O6	9.35	125.51	119.90
35	E	1315	G	N1-C6-O6	9.34	125.51	119.90
35	E	1203	G	N1-C6-O6	9.34	125.50	119.90
35	E	605	G	N1-C6-O6	9.34	125.50	119.90
35	E	481	G	N1-C6-O6	9.33	125.50	119.90
35	E	276	G	C5-C6-O6	-9.33	123.00	128.60
35	E	1656	G	N1-C6-O6	9.33	125.50	119.90
35	E	240	G	N1-C6-O6	9.32	125.50	119.90
35	E	622	G	N1-C6-O6	9.32	125.49	119.90
35	E	994	G	N1-C6-O6	9.32	125.49	119.90
35	E	1950	G	N1-C6-O6	9.32	125.49	119.90
35	E	1968	G	N1-C6-O6	9.32	125.49	119.90
35	E	41	G	N1-C6-O6	9.31	125.49	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	794	G	N1-C6-O6	9.31	125.49	119.90
35	E	1569	G	N1-C6-O6	9.31	125.49	119.90
35	E	435	G	N1-C6-O6	9.31	125.48	119.90
35	E	1756	G	N1-C6-O6	9.30	125.48	119.90
35	E	1868	G	C5-C6-O6	-9.30	123.02	128.60
35	E	244	G	N1-C6-O6	9.30	125.48	119.90
35	E	1932	G	N1-C6-O6	9.29	125.48	119.90
35	E	2310	G	N1-C6-O6	9.29	125.47	119.90
35	E	1816	G	N1-C6-O6	9.28	125.47	119.90
35	E	147	G	N1-C6-O6	9.27	125.46	119.90
35	E	1876	G	N1-C6-O6	9.27	125.46	119.90
35	E	1320	G	N1-C6-O6	9.27	125.46	119.90
35	E	2172	G	N1-C6-O6	9.27	125.46	119.90
35	E	712	U	O4'-C1'-N1	9.27	115.61	108.20
35	E	1759	G	N1-C6-O6	9.26	125.45	119.90
35	E	133	G	C5-C6-O6	-9.26	123.05	128.60
35	E	291	G	C5-C6-O6	-9.25	123.05	128.60
35	E	439	G	N1-C6-O6	9.25	125.45	119.90
35	E	448	A	N1-C6-N6	9.23	124.14	118.60
35	E	1214	G	N1-C6-O6	9.23	125.44	119.90
35	E	1854	G	C5-C6-O6	-9.23	123.06	128.60
35	E	847	U	P-O3'-C3'	9.22	130.77	119.70
35	E	313	G	N1-C6-O6	9.20	125.42	119.90
35	E	1972	G	N1-C6-O6	9.20	125.42	119.90
35	E	106	G	C5-C6-O6	-9.20	123.08	128.60
35	E	1075	G	N1-C6-O6	9.20	125.42	119.90
35	E	1623	G	N1-C6-O6	9.20	125.42	119.90
35	E	2182	G	N1-C6-O6	9.19	125.41	119.90
35	E	179	G	N1-C6-O6	9.19	125.41	119.90
35	E	547	G	N1-C6-O6	9.18	125.41	119.90
35	E	2086	G	N1-C6-O6	9.17	125.40	119.90
35	E	2269	G	N1-C6-O6	9.17	125.40	119.90
35	E	2038	G	C5-C6-O6	-9.17	123.10	128.60
35	E	1083	G	N1-C6-O6	9.16	125.40	119.90
35	E	1898	G	C5-C6-O6	-9.15	123.11	128.60
35	E	1776	G	C5-C6-O6	-9.13	123.12	128.60
35	E	790	G	N1-C6-O6	9.13	125.38	119.90
35	E	377	G	N1-C6-O6	9.12	125.37	119.90
35	E	757	G	N1-C6-O6	9.12	125.37	119.90
35	E	1212	G	N1-C6-O6	9.12	125.37	119.90
35	E	469	G	N1-C6-O6	9.11	125.37	119.90
35	E	468	G	N1-C6-O6	9.11	125.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	699	C	O4'-C1'-N1	9.11	115.48	108.20
35	E	1228	G	N1-C6-O6	9.11	125.36	119.90
35	E	1940	G	N1-C6-O6	9.10	125.36	119.90
35	E	1694	G	N1-C6-O6	9.10	125.36	119.90
35	E	1555	G	C5-C6-O6	-9.10	123.14	128.60
35	E	567	G	C5-C6-O6	-9.09	123.14	128.60
35	E	1692	G	N1-C6-O6	9.09	125.35	119.90
35	E	1337	G	N1-C6-O6	9.08	125.35	119.90
35	E	2064	G	N1-C6-O6	9.08	125.35	119.90
35	E	1538	G	N1-C6-O6	9.08	125.35	119.90
35	E	2285	G	N1-C6-O6	9.08	125.35	119.90
35	E	748	G	N1-C6-O6	9.08	125.35	119.90
35	E	263	G	C5-C6-O6	-9.07	123.16	128.60
35	E	321	G	N1-C6-O6	9.07	125.34	119.90
35	E	433	G	N1-C6-O6	9.07	125.34	119.90
35	E	79	G	C5-C6-O6	-9.07	123.16	128.60
35	E	1234	G	N1-C6-O6	9.06	125.34	119.90
35	E	228	G	N1-C6-O6	9.06	125.34	119.90
35	E	1796	G	N1-C6-O6	9.06	125.34	119.90
35	E	1798	G	N1-C6-O6	9.06	125.34	119.90
35	E	931	G	C5-C6-O6	-9.05	123.17	128.60
35	E	119	G	N1-C6-O6	9.05	125.33	119.90
35	E	1953	G	C5-C6-O6	-9.05	123.17	128.60
35	E	1317	G	N1-C6-O6	9.05	125.33	119.90
35	E	1969	G	N1-C6-O6	9.05	125.33	119.90
35	E	1288	G	N1-C6-O6	9.05	125.33	119.90
35	E	530	G	C5-C6-O6	-9.04	123.18	128.60
35	E	792	G	C5-C6-O6	-9.04	123.18	128.60
35	E	824	G	N1-C6-O6	9.04	125.32	119.90
35	E	918	G	N1-C6-O6	9.04	125.32	119.90
35	E	1736	G	N1-C6-O6	9.04	125.32	119.90
35	E	436	G	N1-C6-O6	9.03	125.32	119.90
35	E	555	G	C5-C6-O6	-9.03	123.18	128.60
35	E	2224	G	C5-C6-O6	-9.03	123.18	128.60
35	E	539	G	N1-C6-O6	9.03	125.32	119.90
35	E	1921	G	N1-C6-O6	9.03	125.32	119.90
35	E	63	G	C5-C6-O6	-9.02	123.19	128.60
35	E	188	G	C5-C6-O6	-9.02	123.19	128.60
35	E	1277	G	C5-C6-O6	-9.02	123.19	128.60
35	E	273	G	N1-C6-O6	9.02	125.31	119.90
35	E	2050	C	P-O3'-C3'	9.02	130.52	119.70
35	E	1614	G	N1-C6-O6	9.01	125.31	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1253	G	N1-C6-O6	9.01	125.31	119.90
35	E	1575	G	N1-C6-O6	9.01	125.31	119.90
35	E	733	G	C5-C6-O6	-9.01	123.20	128.60
35	E	2144	G	N1-C6-O6	9.00	125.30	119.90
35	E	1739	G	N1-C6-O6	9.00	125.30	119.90
35	E	86	G	C5-C6-O6	-9.00	123.20	128.60
35	E	1644	G	C5-C6-O6	-9.00	123.20	128.60
35	E	1817	G	C5-C6-O6	-9.00	123.20	128.60
35	E	443	G	N1-C6-O6	8.99	125.30	119.90
35	E	2020	G	N1-C6-O6	8.99	125.30	119.90
35	E	1933	G	N1-C6-O6	8.99	125.29	119.90
35	E	1914	U	O4'-C1'-N1	8.99	115.39	108.20
35	E	2124	G	N1-C6-O6	8.99	125.29	119.90
35	E	289	G	N1-C6-O6	8.98	125.29	119.90
35	E	23	G	C5-C6-O6	-8.98	123.21	128.60
35	E	465	G	N1-C6-O6	8.97	125.28	119.90
35	E	2061	G	N1-C6-O6	8.97	125.28	119.90
35	E	1873	G	C5-C6-O6	-8.97	123.22	128.60
35	E	1701	G	N1-C6-O6	8.96	125.28	119.90
35	E	2012	C	P-O5'-C5'	8.96	135.23	120.90
35	E	1617	G	N1-C6-O6	8.95	125.27	119.90
35	E	921	G	N1-C6-O6	8.95	125.27	119.90
35	E	1225	G	N1-C6-O6	8.94	125.27	119.90
35	E	1995	G	N1-C6-O6	8.94	125.27	119.90
35	E	479	G	N1-C6-O6	8.94	125.26	119.90
35	E	888	G	C5-C6-O6	-8.94	123.24	128.60
35	E	164	G	N1-C6-O6	8.93	125.26	119.90
35	E	249	A	O4'-C1'-N9	8.93	115.35	108.20
35	E	512	A	N1-C6-N6	8.93	123.96	118.60
35	E	682	G	N1-C6-O6	8.93	125.26	119.90
35	E	1367	G	C5-C6-O6	-8.93	123.24	128.60
35	E	2023	C	O4'-C1'-N1	8.93	115.35	108.20
35	E	2108	G	N1-C6-O6	8.93	125.26	119.90
35	E	814	C	C2-N1-C1'	8.93	128.62	118.80
35	E	833	A	P-O3'-C3'	8.93	130.41	119.70
35	E	1713	G	N1-C6-O6	8.93	125.26	119.90
35	E	1640	G	N1-C6-O6	8.92	125.25	119.90
35	E	1823	G	N1-C6-O6	8.92	125.25	119.90
35	E	400	G	N1-C6-O6	8.91	125.25	119.90
35	E	838	G	N1-C6-O6	8.91	125.25	119.90
35	E	1691	G	N1-C6-O6	8.91	125.25	119.90
35	E	893	G	N1-C6-O6	8.91	125.25	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2212	G	N1-C6-O6	8.91	125.25	119.90
35	E	1190	G	N1-C6-O6	8.90	125.24	119.90
35	E	335	G	C5-C6-O6	-8.90	123.26	128.60
35	E	385	G	N1-C6-O6	8.90	125.24	119.90
35	E	1199	G	N1-C6-O6	8.90	125.24	119.90
35	E	685	G	N1-C6-O6	8.90	125.24	119.90
35	E	761	G	N1-C6-O6	8.90	125.24	119.90
35	E	796	G	N1-C6-O6	8.90	125.24	119.90
35	E	1081	G	N1-C6-O6	8.90	125.24	119.90
35	E	1560	G	N1-C6-O6	8.90	125.24	119.90
35	E	213	G	N1-C6-O6	8.89	125.24	119.90
35	E	985	G	N1-C6-O6	8.89	125.24	119.90
35	E	1249	G	N1-C6-O6	8.89	125.24	119.90
35	E	1875	G	N1-C6-O6	8.89	125.23	119.90
35	E	1901	G	N1-C6-O6	8.89	125.23	119.90
35	E	2123	C	O4'-C1'-N1	8.89	115.31	108.20
35	E	745	C	O4'-C1'-N1	8.88	115.31	108.20
35	E	1993	G	N1-C6-O6	8.89	125.23	119.90
35	E	1183	G	N1-C6-O6	8.88	125.23	119.90
35	E	693	G	N1-C6-O6	8.88	125.23	119.90
35	E	511	G	N1-C6-O6	8.88	125.22	119.90
35	E	1792	G	N1-C6-O6	8.87	125.22	119.90
35	E	2049	C	O4'-C1'-N1	8.87	115.30	108.20
35	E	2079	G	N1-C6-O6	8.87	125.22	119.90
35	E	248	G	N1-C6-O6	8.87	125.22	119.90
35	E	602	G	N1-C6-O6	8.87	125.22	119.90
35	E	2151	U	O4'-C1'-N1	8.86	115.29	108.20
35	E	661	G	C5-C6-O6	-8.86	123.28	128.60
35	E	53	G	C5-C6-O6	-8.86	123.28	128.60
35	E	419	G	N1-C6-O6	8.86	125.22	119.90
35	E	1765	G	N1-C6-O6	8.86	125.22	119.90
35	E	2043	G	C5-C6-O6	-8.86	123.28	128.60
35	E	1618	G	N1-C6-O6	8.85	125.21	119.90
35	E	1198	G	N1-C6-O6	8.84	125.20	119.90
35	E	2286	G	N1-C6-O6	8.84	125.20	119.90
35	E	1072	G	N1-C6-O6	8.84	125.20	119.90
35	E	1917	G	N1-C6-O6	8.84	125.20	119.90
35	E	424	G	N1-C6-O6	8.83	125.20	119.90
35	E	476	G	N1-C6-O6	8.83	125.20	119.90
35	E	1364	G	N1-C6-O6	8.83	125.20	119.90
35	E	1376	G	N1-C6-O6	8.83	125.20	119.90
35	E	2179	G	N1-C6-O6	8.83	125.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1738	G	N1-C6-O6	8.83	125.20	119.90
35	E	1226	G	N1-C6-O6	8.82	125.19	119.90
35	E	2109	G	N1-C6-O6	8.82	125.19	119.90
35	E	1276	G	N1-C6-O6	8.82	125.19	119.90
35	E	2074	G	N1-C6-O6	8.82	125.19	119.90
35	E	815	G	N1-C6-O6	8.82	125.19	119.90
35	E	1813	G	N1-C6-O6	8.82	125.19	119.90
35	E	989	G	N1-C6-O6	8.81	125.19	119.90
35	E	2030	G	N1-C6-O6	8.81	125.19	119.90
35	E	631	G	N1-C6-O6	8.80	125.18	119.90
35	E	411	G	N1-C6-O6	8.80	125.18	119.90
35	E	1236	G	N1-C6-O6	8.80	125.18	119.90
35	E	1322	G	N1-C6-O6	8.80	125.18	119.90
35	E	1551	G	N1-C6-O6	8.80	125.18	119.90
35	E	1924	G	N1-C6-O6	8.80	125.18	119.90
35	E	137	C	O4'-C1'-N1	8.79	115.24	108.20
35	E	212	G	N1-C6-O6	8.80	125.18	119.90
35	E	2040	G	N1-C6-O6	8.79	125.18	119.90
35	E	46	U	O4'-C1'-N1	8.79	115.23	108.20
35	E	938	G	N1-C6-O6	8.79	125.17	119.90
35	E	2011	A	P-O3'-C3'	8.79	130.25	119.70
35	E	1632	G	N1-C6-O6	8.79	125.17	119.90
35	E	649	G	N1-C6-O6	8.78	125.17	119.90
35	E	2101	G	N1-C6-O6	8.78	125.17	119.90
35	E	379	G	N1-C6-O6	8.78	125.17	119.90
35	E	1963	G	N1-C6-O6	8.78	125.17	119.90
35	E	407	G	N1-C6-O6	8.78	125.17	119.90
35	E	1590	G	N1-C6-O6	8.77	125.17	119.90
35	E	309	G	N1-C6-O6	8.77	125.16	119.90
35	E	930	G	N1-C6-O6	8.77	125.16	119.90
35	E	1596	G	N1-C6-O6	8.77	125.16	119.90
35	E	1084	G	N1-C6-O6	8.77	125.16	119.90
35	E	1165	G	C5-C6-O6	-8.77	123.34	128.60
35	E	1890	C	O4'-C1'-N1	8.76	115.21	108.20
35	E	20	G	N1-C6-O6	8.76	125.16	119.90
35	E	754	G	N1-C6-O6	8.76	125.16	119.90
35	E	909	G	N1-C6-O6	8.76	125.16	119.90
35	E	1915	G	N1-C6-O6	8.76	125.15	119.90
35	E	903	G	N1-C6-O6	8.75	125.15	119.90
35	E	1383	G	N1-C6-O6	8.75	125.15	119.90
35	E	919	G	N1-C6-O6	8.75	125.15	119.90
35	E	30	G	C5-C6-O6	-8.74	123.35	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	828	G	N1-C6-O6	8.74	125.15	119.90
35	E	1696	G	N1-C6-O6	8.74	125.14	119.90
35	E	688	G	N1-C6-O6	8.74	125.14	119.90
35	E	1622	G	N1-C6-O6	8.74	125.14	119.90
35	E	2106	G	N1-C6-O6	8.74	125.14	119.90
35	E	591	G	N1-C6-O6	8.73	125.14	119.90
35	E	618	G	N1-C6-O6	8.73	125.14	119.90
35	E	2081	G	N1-C6-O6	8.73	125.14	119.90
35	E	667	G	N1-C6-O6	8.73	125.14	119.90
35	E	1906	C	O4'-C1'-N1	8.72	115.18	108.20
35	E	92	G	N1-C6-O6	8.72	125.13	119.90
35	E	2152	C	O4'-C1'-N1	8.72	115.17	108.20
35	E	1637	G	N1-C6-O6	8.72	125.13	119.90
35	E	1358	G	N1-C6-O6	8.71	125.13	119.90
35	E	1926	G	N1-C6-O6	8.71	125.13	119.90
35	E	1772	G	N1-C6-O6	8.71	125.13	119.90
35	E	2213	G	N1-C6-O6	8.71	125.13	119.90
35	E	80	G	N1-C6-O6	8.71	125.12	119.90
35	E	1549	G	C5-C6-O6	-8.71	123.38	128.60
35	E	1902	G	N1-C6-O6	8.71	125.13	119.90
35	E	981	G	N1-C6-O6	8.70	125.12	119.90
35	E	466	G	C5-C6-O6	-8.70	123.38	128.60
35	E	532	G	C5-C6-O6	-8.70	123.38	128.60
35	E	2296	G	C5-C6-O6	-8.70	123.38	128.60
35	E	1531	G	N1-C6-O6	8.69	125.12	119.90
35	E	1853	C	O4'-C1'-N1	8.69	115.16	108.20
35	E	2096	G	N1-C6-O6	8.69	125.11	119.90
35	E	876	A	N1-C6-N6	8.69	123.81	118.60
35	E	1384	G	C5-C6-O6	-8.68	123.39	128.60
35	E	412	G	C5-C6-O6	-8.68	123.39	128.60
35	E	1535	U	O4'-C1'-N1	8.68	115.14	108.20
35	E	973	G	N1-C6-O6	8.67	125.10	119.90
35	E	1201	G	N1-C6-O6	8.67	125.10	119.90
35	E	397	G	N1-C6-O6	8.67	125.10	119.90
35	E	1182	G	C5-C6-O6	-8.66	123.40	128.60
35	E	881	G	N1-C6-O6	8.65	125.09	119.90
35	E	924	G	N1-C6-O6	8.65	125.09	119.90
35	E	1580	G	N1-C6-O6	8.65	125.09	119.90
35	E	2237	G	C5-C6-O6	-8.65	123.41	128.60
35	E	286	G	N1-C6-O6	8.65	125.09	119.90
35	E	797	G	N1-C6-O6	8.65	125.09	119.90
35	E	1187	C	O4'-C1'-N1	8.65	115.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	16	G	N1-C6-O6	8.65	125.09	119.90
35	E	1210	G	C5-C6-O6	-8.65	123.41	128.60
35	E	1943	G	C5-C6-O6	-8.65	123.41	128.60
35	E	2010	G	N1-C6-O6	8.65	125.09	119.90
35	E	1321	G	N1-C6-O6	8.65	125.09	119.90
35	E	867	G	N1-C6-O6	8.64	125.08	119.90
35	E	819	G	N1-C6-O6	8.64	125.08	119.90
35	E	899	G	N1-C6-O6	8.63	125.08	119.90
35	E	132	G	C5-C6-O6	-8.63	123.42	128.60
35	E	440	C	O4'-C1'-N1	8.63	115.10	108.20
35	E	6	G	C5-C6-O6	-8.63	123.42	128.60
35	E	418	G	N1-C6-O6	8.63	125.08	119.90
35	E	2233	G	C5-C6-O6	-8.63	123.42	128.60
35	E	1977	G	N1-C6-O6	8.63	125.08	119.90
35	E	1767	G	N1-C6-O6	8.62	125.07	119.90
35	E	763	G	N1-C6-O6	8.62	125.07	119.90
35	E	1723	G	N1-C6-O6	8.61	125.07	119.90
35	E	2217	G	C5-C6-O6	-8.61	123.43	128.60
35	E	2248	G	N1-C6-O6	8.61	125.06	119.90
35	E	223	G	C5-C6-O6	-8.61	123.44	128.60
35	E	337	G	N1-C6-O6	8.60	125.06	119.90
35	E	519	G	N1-C6-O6	8.60	125.06	119.90
35	E	1755	G	N1-C6-O6	8.60	125.06	119.90
35	E	1646	G	N1-C6-O6	8.59	125.06	119.90
35	E	768	G	N1-C6-O6	8.59	125.05	119.90
35	E	677	G	N1-C6-O6	8.59	125.05	119.90
35	E	696	G	N1-C6-O6	8.59	125.05	119.90
35	E	1668	G	N1-C6-O6	8.59	125.05	119.90
35	E	1731	G	C5-C6-O6	-8.59	123.45	128.60
35	E	108	C	O4'-C1'-N1	8.58	115.06	108.20
35	E	159	G	N1-C6-O6	8.58	125.05	119.90
35	E	676	G	N1-C6-O6	8.58	125.05	119.90
35	E	697	G	N1-C6-O6	8.58	125.05	119.90
35	E	368	G	N1-C6-O6	8.57	125.05	119.90
35	E	252	G	N1-C6-O6	8.57	125.04	119.90
35	E	1586	G	N1-C6-O6	8.57	125.04	119.90
35	E	69	C	O4'-C1'-N1	8.56	115.05	108.20
35	E	739	G	N1-C6-O6	8.56	125.04	119.90
35	E	1709	G	N1-C6-O6	8.56	125.04	119.90
35	E	116	G	N1-C6-O6	8.56	125.03	119.90
35	E	970	G	C5-C6-O6	-8.56	123.47	128.60
35	E	169	G	C5-C6-O6	-8.55	123.47	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2188	G	N1-C6-O6	8.56	125.03	119.90
35	E	1780	G	N1-C6-O6	8.55	125.03	119.90
35	E	1882	G	N1-C6-O6	8.55	125.03	119.90
35	E	2021	G	N1-C6-O6	8.55	125.03	119.90
35	E	695	G	N1-C6-O6	8.54	125.03	119.90
35	E	871	G	N1-C6-O6	8.55	125.03	119.90
35	E	2298	G	N1-C6-O6	8.54	125.03	119.90
35	E	1256	C	O4'-C1'-N1	8.54	115.03	108.20
35	E	808	G	N1-C6-O6	8.54	125.02	119.90
35	E	2053	G	N1-C6-O6	8.54	125.02	119.90
35	E	603	G	N1-C6-O6	8.53	125.02	119.90
35	E	816	C	O4'-C1'-N1	8.53	115.03	108.20
35	E	1934	G	N1-C6-O6	8.53	125.02	119.90
35	E	714	G	N1-C6-O6	8.52	125.01	119.90
35	E	311	G	C5-C6-O6	-8.52	123.49	128.60
35	E	724	A	C2-N3-C4	-8.52	106.34	110.60
35	E	1548	C	C2-N1-C1'	8.52	128.17	118.80
35	E	2191	G	N1-C6-O6	8.51	125.01	119.90
35	E	997	G	N1-C6-O6	8.51	125.01	119.90
35	E	2112	U	O4'-C1'-N1	8.51	115.01	108.20
35	E	431	G	C5-C6-O6	-8.50	123.50	128.60
35	E	923	A	P-O3'-C3'	8.50	129.90	119.70
35	E	2054	G	N1-C6-O6	8.50	125.00	119.90
35	E	2042	G	N1-C6-O6	8.50	125.00	119.90
35	E	1805	G	N1-C6-O6	8.49	125.00	119.90
35	E	1869	G	C5-C6-O6	-8.49	123.51	128.60
35	E	1989	G	N1-C6-O6	8.49	124.99	119.90
35	E	2032	U	O4'-C1'-N1	8.49	114.99	108.20
35	E	88	G	N1-C6-O6	8.49	124.99	119.90
35	E	1891	C	O4'-C1'-N1	8.49	114.99	108.20
35	E	2075	G	N1-C6-O6	8.49	124.99	119.90
35	E	541	G	C5-C6-O6	-8.48	123.51	128.60
35	E	1582	G	N1-C6-O6	8.48	124.99	119.90
35	E	220	G	C5-C6-O6	-8.47	123.52	128.60
35	E	564	G	C5-C6-O6	-8.47	123.52	128.60
35	E	2311	G	N1-C6-O6	8.47	124.98	119.90
35	E	1075	G	O4'-C1'-N9	8.46	114.97	108.20
35	E	2095	G	N1-C6-O6	8.46	124.98	119.90
35	E	275	A	C5-C6-N6	-8.46	116.93	123.70
35	E	1527	G	N1-C6-O6	8.46	124.98	119.90
35	E	698	C	O4'-C1'-N1	8.46	114.97	108.20
35	E	1239	G	N1-C6-O6	8.45	124.97	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2017	G	N1-C6-O6	8.45	124.97	119.90
35	E	857	G	C5-C6-O6	-8.45	123.53	128.60
35	E	1647	G	N1-C6-O6	8.45	124.97	119.90
35	E	1202	G	N1-C6-O6	8.45	124.97	119.90
35	E	2289	G	C5-C6-O6	-8.45	123.53	128.60
35	E	2263	G	N1-C6-O6	8.45	124.97	119.90
35	E	834	G	N1-C6-O6	8.44	124.96	119.90
35	E	713	G	N1-C6-O6	8.43	124.96	119.90
35	E	950	G	C5-C6-O6	-8.42	123.55	128.60
35	E	445	G	N1-C6-O6	8.42	124.95	119.90
35	E	1346	G	N1-C6-O6	8.41	124.95	119.90
35	E	1910	G	C5-C6-O6	-8.41	123.55	128.60
35	E	1257	C	O4'-C1'-N1	8.41	114.93	108.20
35	E	211	G	C5-C6-O6	-8.41	123.56	128.60
35	E	2122	G	C5-C6-O6	-8.41	123.56	128.60
35	E	1642	G	N1-C6-O6	8.41	124.94	119.90
35	E	2023	C	C2-N1-C1'	8.41	128.05	118.80
35	E	1598	G	C5-C6-O6	-8.39	123.56	128.60
35	E	2139	G	C5-C6-O6	-8.39	123.56	128.60
35	E	963	G	C5-C6-O6	-8.39	123.57	128.60
35	E	832	G	N1-C6-O6	8.39	124.93	119.90
35	E	749	C	P-O3'-C3'	8.39	129.76	119.70
35	E	753	U	O4'-C1'-N1	8.38	114.91	108.20
35	E	719	G	N1-C6-O6	8.38	124.93	119.90
35	E	1548	C	O4'-C1'-N1	8.38	114.91	108.20
35	E	48	G	C5-C6-O6	-8.38	123.57	128.60
35	E	189	G	C5-C6-O6	-8.38	123.57	128.60
35	E	230	G	C5-C6-O6	-8.37	123.58	128.60
35	E	1076	C	O4'-C1'-N1	8.38	114.90	108.20
35	E	996	G	C5-C6-O6	-8.37	123.58	128.60
35	E	1220	G	C5-C6-O6	-8.37	123.58	128.60
35	E	1	G	N1-C6-O6	8.37	124.92	119.90
35	E	394	G	C5-C6-O6	-8.37	123.58	128.60
35	E	741	G	N1-C6-O6	8.36	124.92	119.90
35	E	844	G	N1-C6-O6	8.35	124.91	119.90
35	E	31	C	O4'-C1'-N1	8.35	114.88	108.20
35	E	922	C	P-O3'-C3'	8.35	129.72	119.70
35	E	1195	G	N1-C6-O6	8.35	124.91	119.90
35	E	1262	C	O4'-C1'-N1	8.34	114.87	108.20
35	E	593	G	N1-C6-O6	8.34	124.90	119.90
35	E	57	G	C5-C6-O6	-8.34	123.60	128.60
35	E	1864	C	O4'-C1'-N1	8.33	114.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	262	U	O4'-C1'-N1	8.33	114.86	108.20
35	E	932	G	C5-C6-O6	-8.33	123.60	128.60
35	E	1188	C	O4'-C1'-N1	8.32	114.86	108.20
35	E	395	G	C5-C6-O6	-8.31	123.61	128.60
35	E	334	G	C5-C6-O6	-8.31	123.61	128.60
35	E	437	G	N1-C6-O6	8.31	124.89	119.90
35	E	524	G	C5-C6-O6	-8.31	123.61	128.60
35	E	1850	C	O4'-C1'-N1	8.31	114.85	108.20
35	E	272	G	C5-C6-O6	-8.30	123.62	128.60
35	E	1581	A	N1-C6-N6	8.30	123.58	118.60
35	E	2222	G	C5-C6-O6	-8.30	123.62	128.60
35	E	641	C	O4'-C1'-N1	8.30	114.84	108.20
35	E	2275	G	C5-C6-O6	-8.30	123.62	128.60
35	E	7	G	C5-C6-O6	-8.30	123.62	128.60
35	E	2307	G	N1-C6-O6	8.30	124.88	119.90
35	E	514	G	C5-C6-O6	-8.29	123.63	128.60
35	E	1680	G	N1-C6-O6	8.29	124.87	119.90
35	E	630	G	N1-C6-O6	8.29	124.87	119.90
35	E	2121	G	C5-C6-O6	-8.29	123.63	128.60
35	E	320	G	C5-C6-O6	-8.28	123.64	128.60
35	E	2176	G	C5-C6-O6	-8.27	123.64	128.60
35	E	640	G	C5-C6-O6	-8.27	123.64	128.60
35	E	430	G	C5-C6-O6	-8.27	123.64	128.60
35	E	771	A	P-O3'-C3'	8.27	129.62	119.70
35	E	1074	C	O4'-C1'-N1	8.27	114.81	108.20
35	E	1985	C	O4'-C1'-N1	8.26	114.81	108.20
35	E	157	G	C5-C6-O6	-8.25	123.65	128.60
35	E	165	C	O4'-C1'-N1	8.25	114.80	108.20
35	E	1741	G	N1-C6-O6	8.25	124.85	119.90
35	E	2206	G	C5-C6-O6	-8.25	123.65	128.60
35	E	1685	G	N1-C6-O6	8.25	124.85	119.90
35	E	1935	C	O4'-C1'-N1	8.25	114.80	108.20
35	E	552	G	C5-C6-O6	-8.24	123.66	128.60
35	E	2174	C	O4'-C1'-N1	8.24	114.79	108.20
35	E	373	G	N1-C6-O6	8.24	124.84	119.90
35	E	238	G	C5-C6-O6	-8.23	123.66	128.60
35	E	294	G	N1-C6-O6	8.23	124.84	119.90
35	E	420	G	C5-C6-O6	-8.23	123.66	128.60
35	E	488	G	C5-C6-O6	-8.23	123.66	128.60
35	E	776	G	N1-C6-O6	8.23	124.84	119.90
35	E	1982	C	O4'-C1'-N1	8.23	114.78	108.20
35	E	1594	G	C5-C6-O6	-8.22	123.67	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	428	C	O4'-C1'-N1	8.22	114.78	108.20
35	E	478	C	O4'-C1'-N1	8.22	114.78	108.20
35	E	1307	G	C5-C6-O6	-8.22	123.67	128.60
35	E	2235	C	O4'-C1'-N1	8.21	114.77	108.20
35	E	606	G	C5-C6-O6	-8.21	123.68	128.60
35	E	2265	G	C5-C6-O6	-8.21	123.68	128.60
35	E	2290	C	O4'-C1'-N1	8.20	114.76	108.20
35	E	1870	G	C5-C6-O6	-8.20	123.68	128.60
35	E	887	C	O4'-C1'-N1	8.20	114.76	108.20
35	E	2302	C	O4'-C1'-N1	8.20	114.76	108.20
35	E	700	U	O4'-C1'-N1	8.19	114.76	108.20
35	E	1735	G	C5-C6-O6	-8.19	123.69	128.60
35	E	1339	G	C5-C6-O6	-8.19	123.69	128.60
35	E	1906	C	C2-N1-C1'	8.19	127.81	118.80
35	E	2278	G	C5-C6-O6	-8.19	123.69	128.60
35	E	34	G	C5-C6-O6	-8.19	123.69	128.60
35	E	389	G	C5-C6-O6	-8.19	123.69	128.60
35	E	2246	C	O4'-C1'-N1	8.19	114.75	108.20
35	E	1750	C	O4'-C1'-N1	8.18	114.75	108.20
35	E	1711	G	N1-C6-O6	8.18	124.81	119.90
35	E	385	G	C5-C6-O6	-8.18	123.69	128.60
35	E	746	A	C6-C5-N7	-8.17	126.58	132.30
35	E	2198	C	O4'-C1'-N1	8.17	114.74	108.20
35	E	2197	G	C5-C6-O6	-8.17	123.70	128.60
35	E	2220	G	C5-C6-O6	-8.17	123.70	128.60
35	E	1203	G	C5-C6-O6	-8.16	123.70	128.60
35	E	1540	C	O4'-C1'-N1	8.16	114.73	108.20
35	E	718	A	C5-C6-N1	-8.16	113.62	117.70
35	E	192	G	C5-C6-O6	-8.15	123.71	128.60
35	E	204	G	C5-C6-O6	-8.15	123.71	128.60
35	E	1875	G	P-O3'-C3'	8.15	129.49	119.70
35	E	205	G	C5-C6-O6	-8.14	123.71	128.60
35	E	404	G	C5-C6-O6	-8.14	123.72	128.60
35	E	1793	G	C5-C6-O6	-8.14	123.72	128.60
35	E	2266	G	C5-C6-O6	-8.13	123.72	128.60
35	E	1219	C	O4'-C1'-N1	8.13	114.70	108.20
35	E	1907	C	O4'-C1'-N1	8.13	114.70	108.20
35	E	113	U	O4'-C1'-N1	8.12	114.70	108.20
35	E	1579	G	C5-C6-O6	-8.12	123.73	128.60
35	E	1082	U	O4'-C1'-N1	8.12	114.70	108.20
35	E	1230	G	C5-C6-O6	-8.12	123.73	128.60
35	E	1938	C	O4'-C1'-N1	8.12	114.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1979	G	C5-C6-O6	-8.12	123.73	128.60
35	E	319	C	O4'-C1'-N1	8.12	114.69	108.20
35	E	837	C	O4'-C1'-N1	8.11	114.69	108.20
35	E	1983	U	O4'-C1'-N1	8.11	114.69	108.20
35	E	2067	C	O4'-C1'-N1	8.11	114.69	108.20
35	E	135	C	O4'-C1'-N1	8.10	114.68	108.20
35	E	834	G	P-O3'-C3'	8.10	129.42	119.70
35	E	2194	G	C5-C6-O6	-8.10	123.74	128.60
35	E	391	C	O4'-C1'-N1	8.10	114.68	108.20
35	E	84	C	O4'-C1'-N1	8.10	114.68	108.20
35	E	318	C	O4'-C1'-N1	8.10	114.68	108.20
35	E	186	C	O4'-C1'-N1	8.09	114.67	108.20
35	E	405	G	C5-C6-O6	-8.09	123.74	128.60
35	E	232	C	O4'-C1'-N1	8.09	114.67	108.20
35	E	559	U	P-O3'-C3'	8.09	129.41	119.70
35	E	942	C	C2-N1-C1'	8.09	127.70	118.80
35	E	982	G	P-O3'-C3'	8.09	129.41	119.70
35	E	331	U	O4'-C1'-N1	8.09	114.67	108.20
35	E	508	G	C5-C6-O6	-8.09	123.75	128.60
35	E	423	C	O4'-C1'-N1	8.08	114.66	108.20
35	E	1237	G	C5-C6-O6	-8.08	123.75	128.60
35	E	1900	G	C5-C6-O6	-8.08	123.75	128.60
35	E	1211	G	N1-C6-O6	8.08	124.75	119.90
35	E	548	C	O4'-C1'-N1	8.07	114.66	108.20
35	E	104	C	O4'-C1'-N1	8.07	114.66	108.20
35	E	156	G	C5-C6-O6	-8.07	123.76	128.60
35	E	807	U	O4'-C1'-N1	8.07	114.66	108.20
35	E	374	G	N1-C6-O6	8.06	124.74	119.90
35	E	1273	G	N1-C6-O6	8.05	124.73	119.90
35	E	722	C	O4'-C1'-N1	8.05	114.64	108.20
35	E	720	U	O4'-C1'-N1	8.05	114.64	108.20
35	E	1577	G	C5-C6-O6	-8.05	123.77	128.60
35	E	2114	U	C2-N1-C1'	8.05	127.36	117.70
35	E	517	G	C5-C6-O6	-8.04	123.77	128.60
35	E	2295	G	C5-C6-O6	-8.04	123.78	128.60
35	E	971	G	C5-C6-O6	-8.03	123.78	128.60
35	E	1957	C	O4'-C1'-N1	8.03	114.62	108.20
35	E	668	C	O4'-C1'-N1	8.02	114.62	108.20
35	E	470	G	C5-C6-O6	-8.02	123.79	128.60
35	E	579	C	O4'-C1'-N1	8.02	114.61	108.20
35	E	409	G	C5-C6-O6	-8.01	123.79	128.60
35	E	1236	G	O4'-C1'-N9	8.01	114.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1325	C	O4'-C1'-N1	8.01	114.61	108.20
35	E	2157	C	O4'-C1'-N1	8.01	114.61	108.20
35	E	1777	G	C5-C6-O6	-8.01	123.80	128.60
35	E	2125	C	O4'-C1'-N1	8.01	114.61	108.20
35	E	2208	G	C5-C6-O6	-8.01	123.80	128.60
35	E	1851	C	O4'-C1'-N1	8.01	114.60	108.20
35	E	208	G	C5-C6-O6	-8.00	123.80	128.60
35	E	376	C	O4'-C1'-N1	8.00	114.60	108.20
35	E	217	C	O4'-C1'-N1	8.00	114.60	108.20
35	E	2236	C	O4'-C1'-N1	7.99	114.59	108.20
35	E	332	C	O4'-C1'-N1	7.99	114.59	108.20
35	E	907	G	C5-C6-O6	-7.99	123.81	128.60
35	E	240	G	C5-C6-O6	-7.98	123.81	128.60
35	E	2158	C	O4'-C1'-N1	7.97	114.58	108.20
35	E	1263	G	C5-C6-O6	-7.96	123.82	128.60
35	E	1289	G	C5-C6-O6	-7.96	123.82	128.60
35	E	1828	G	N1-C6-O6	7.96	124.68	119.90
35	E	1911	U	O4'-C1'-N1	7.96	114.57	108.20
35	E	477	G	C5-C6-O6	-7.96	123.82	128.60
35	E	746	A	C5-C6-N1	-7.96	113.72	117.70
35	E	162	A	C4-C5-C6	7.96	120.98	117.00
35	E	2244	C	O4'-C1'-N1	7.96	114.56	108.20
35	E	1809	C	O4'-C1'-N1	7.95	114.56	108.20
35	E	619	C	O4'-C1'-N1	7.95	114.56	108.20
35	E	563	U	O4'-C1'-N1	7.94	114.55	108.20
35	E	1216	G	C5-C6-O6	-7.94	123.83	128.60
35	E	2149	C	O4'-C1'-N1	7.94	114.55	108.20
35	E	370	G	C5-C6-O6	-7.94	123.84	128.60
35	E	364	G	C5-C6-O6	-7.93	123.84	128.60
35	E	473	G	C5-C6-O6	-7.93	123.84	128.60
35	E	2205	G	C5-C6-O6	-7.93	123.84	128.60
35	E	1282	C	O4'-C1'-N1	7.93	114.54	108.20
35	E	167	A	O4'-C1'-N9	7.92	114.54	108.20
35	E	410	G	C5-C6-O6	-7.92	123.85	128.60
35	E	1373	C	O4'-C1'-N1	7.92	114.54	108.20
35	E	723	C	O4'-C1'-N1	7.92	114.54	108.20
35	E	42	G	C5-C6-O6	-7.92	123.85	128.60
35	E	678	G	C5-C6-O6	-7.92	123.85	128.60
35	E	387	C	O4'-C1'-N1	7.91	114.53	108.20
35	E	199	G	C5-C6-O6	-7.91	123.85	128.60
35	E	1638	G	N1-C6-O6	7.91	124.65	119.90
35	E	1846	C	O4'-C1'-N1	7.91	114.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	921	G	P-O3'-C3'	7.91	129.19	119.70
35	E	756	G	C5-C6-O6	-7.90	123.86	128.60
35	E	1872	G	N1-C6-O6	7.90	124.64	119.90
35	E	1727	C	O4'-C1'-N1	7.90	114.52	108.20
35	E	1786	G	C5-C6-O6	-7.90	123.86	128.60
35	E	542	C	O4'-C1'-N1	7.89	114.52	108.20
35	E	347	G	C5-C6-O6	-7.89	123.86	128.60
35	E	2184	U	O4'-C1'-N1	7.89	114.51	108.20
35	E	322	G	C5-C6-O6	-7.89	123.86	128.60
35	E	855	G	C5-C6-O6	-7.89	123.87	128.60
35	E	2060	C	O4'-C1'-N1	7.89	114.51	108.20
35	E	131	C	O4'-C1'-N1	7.88	114.51	108.20
35	E	566	G	C5-C6-O6	-7.88	123.87	128.60
35	E	1775	U	O4'-C1'-N1	7.88	114.50	108.20
35	E	403	G	C5-C6-O6	-7.88	123.87	128.60
35	E	489	C	O4'-C1'-N1	7.88	114.50	108.20
35	E	1634	C	N3-C4-N4	7.88	123.51	118.00
35	E	260	A	C5-C6-N1	-7.87	113.77	117.70
35	E	2241	G	C5-C6-O6	-7.87	123.88	128.60
35	E	988	U	O4'-C1'-N1	7.87	114.49	108.20
35	E	2141	G	C5-C6-O6	-7.87	123.88	128.60
35	E	384	G	N1-C6-O6	7.86	124.62	119.90
35	E	382	G	N1-C6-O6	7.86	124.61	119.90
35	E	355	G	C5-C6-O6	-7.86	123.89	128.60
35	E	757	G	C5-C6-O6	-7.86	123.89	128.60
35	E	1082	U	P-O5'-C5'	7.86	133.47	120.90
35	E	568	G	C5-C6-O6	-7.85	123.89	128.60
35	E	2270	C	O4'-C1'-N1	7.85	114.48	108.20
32	o	70	TYR	CB-CG-CD1	-7.85	116.29	121.00
35	E	623	C	O4'-C1'-N1	7.85	114.48	108.20
35	E	217	C	C5'-C4'-C3'	7.85	128.56	116.00
35	E	236	C	O4'-C1'-N1	7.85	114.48	108.20
35	E	1251	C	O4'-C1'-N1	7.85	114.48	108.20
35	E	1980	C	O4'-C1'-N1	7.84	114.48	108.20
35	E	233	G	C5-C6-O6	-7.84	123.89	128.60
35	E	1683	C	O4'-C1'-N1	7.84	114.47	108.20
35	E	1272	C	O4'-C1'-N1	7.83	114.47	108.20
35	E	1645	C	O4'-C1'-N1	7.83	114.47	108.20
35	E	2211	C	O4'-C1'-N1	7.83	114.47	108.20
35	E	77	C	O4'-C1'-N1	7.83	114.46	108.20
35	E	203	C	O4'-C1'-N1	7.83	114.46	108.20
35	E	2137	C	O4'-C1'-N1	7.83	114.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2225	C	O4'-C1'-N1	7.83	114.46	108.20
35	E	207	G	C5-C6-O6	-7.83	123.91	128.60
35	E	1335	U	O4'-C1'-N1	7.83	114.46	108.20
35	E	1899	C	O4'-C1'-N1	7.83	114.46	108.20
35	E	1971	C	O4'-C1'-N1	7.82	114.46	108.20
35	E	158	C	O4'-C1'-N1	7.82	114.46	108.20
35	E	1332	G	C5-C6-O6	-7.81	123.91	128.60
35	E	1569	G	C5-C6-O6	-7.81	123.91	128.60
35	E	2044	G	C5-C6-O6	-7.81	123.91	128.60
35	E	615	G	C5-C6-O6	-7.81	123.91	128.60
35	E	38	C	O4'-C1'-N1	7.81	114.44	108.20
35	E	321	G	C5-C6-O6	-7.81	123.92	128.60
35	E	110	U	O4'-C1'-N1	7.80	114.44	108.20
35	E	1181	C	O4'-C1'-N1	7.80	114.44	108.20
35	E	1880	U	C4'-C3'-C2'	-7.80	94.80	102.60
35	E	1855	G	C5-C6-O6	-7.80	123.92	128.60
35	E	358	C	O4'-C1'-N1	7.80	114.44	108.20
35	E	221	C	O4'-C1'-N1	7.79	114.44	108.20
35	E	282	C	O4'-C1'-N1	7.79	114.43	108.20
35	E	955	U	O4'-C1'-N1	7.79	114.43	108.20
35	E	72	C	O4'-C1'-N1	7.79	114.43	108.20
35	E	560	C	O4'-C1'-N1	7.79	114.43	108.20
35	E	885	U	O4'-C1'-N1	7.79	114.43	108.20
35	E	725	U	O4'-C1'-N1	7.78	114.42	108.20
35	E	2313	U	O4'-C1'-N1	7.78	114.42	108.20
35	E	1291	U	O4'-C1'-N1	7.78	114.42	108.20
35	E	2066	C	O4'-C1'-N1	7.78	114.42	108.20
35	E	2189	A	C4-C5-C6	7.78	120.89	117.00
35	E	2304	G	C5-C6-O6	-7.77	123.94	128.60
35	E	235	C	O4'-C1'-N1	7.77	114.42	108.20
35	E	953	G	C5-C6-O6	-7.77	123.94	128.60
35	E	1320	G	C5-C6-O6	-7.77	123.94	128.60
35	E	482	C	O4'-C1'-N1	7.76	114.41	108.20
35	E	1763	G	C5-C6-O6	-7.76	123.94	128.60
35	E	495	G	C5-C6-O6	-7.76	123.95	128.60
35	E	840	C	O4'-C1'-N1	7.76	114.41	108.20
35	E	152	A	N1-C6-N6	7.75	123.25	118.60
35	E	578	C	O4'-C1'-N1	7.75	114.40	108.20
35	E	1889	U	O4'-C1'-N1	7.75	114.40	108.20
35	E	1191	G	N1-C6-O6	7.75	124.55	119.90
35	E	103	U	O4'-C1'-N1	7.75	114.40	108.20
35	E	651	G	C5-C6-O6	-7.75	123.95	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	828	G	P-O3'-C3'	7.75	129.00	119.70
35	E	2156	G	C5-C6-O6	-7.75	123.95	128.60
35	E	2255	C	O4'-C1'-N1	7.75	114.40	108.20
35	E	546	U	O4'-C1'-N1	7.74	114.39	108.20
35	E	1166	C	O4'-C1'-N1	7.74	114.39	108.20
35	E	1832	A	P-O3'-C3'	7.74	128.99	119.70
35	E	2247	C	O4'-C1'-N1	7.74	114.39	108.20
35	E	147	G	C5-C6-O6	-7.74	123.96	128.60
35	E	452	C	O4'-C1'-N1	7.74	114.39	108.20
35	E	683	U	O4'-C1'-N1	7.74	114.39	108.20
35	E	825	C	O4'-C1'-N1	7.74	114.39	108.20
35	E	1852	G	C5-C6-O6	-7.73	123.96	128.60
35	E	344	G	C5-C6-O6	-7.73	123.96	128.60
34	h	181	TYR	CB-CG-CD2	-7.73	116.36	121.00
35	E	2258	C	O4'-C1'-N1	7.73	114.38	108.20
35	E	139	G	C5-C6-O6	-7.72	123.97	128.60
35	E	1563	G	C5-C6-O6	-7.72	123.97	128.60
35	E	2052	C	O4'-C1'-N1	7.72	114.38	108.20
35	E	120	C	O4'-C1'-N1	7.72	114.38	108.20
35	E	1686	G	N1-C6-O6	7.72	124.53	119.90
35	E	2277	C	O4'-C1'-N1	7.72	114.37	108.20
35	E	2102	C	O4'-C1'-N1	7.71	114.37	108.20
35	E	650	C	O4'-C1'-N1	7.71	114.37	108.20
35	E	547	G	C5-C6-O6	-7.71	123.97	128.60
35	E	1905	U	O4'-C1'-N1	7.71	114.37	108.20
35	E	744	C	O4'-C1'-N1	7.71	114.36	108.20
35	E	1886	G	C5-C6-O6	-7.71	123.98	128.60
35	E	365	C	O4'-C1'-N1	7.71	114.36	108.20
35	E	87	C	O4'-C1'-N1	7.70	114.36	108.20
35	E	176	C	O4'-C1'-N1	7.70	114.36	108.20
35	E	153	C	O4'-C1'-N1	7.70	114.36	108.20
35	E	218	C	O4'-C1'-N1	7.70	114.36	108.20
35	E	333	C	O4'-C1'-N1	7.69	114.35	108.20
35	E	2078	C	O4'-C1'-N1	7.69	114.35	108.20
35	E	2310	G	C5-C6-O6	-7.69	123.99	128.60
35	E	513	G	C5-C6-O6	-7.69	123.99	128.60
35	E	681	C	O4'-C1'-N1	7.69	114.35	108.20
35	E	413	G	C5-C6-O6	-7.68	123.99	128.60
35	E	853	C	O4'-C1'-N1	7.68	114.35	108.20
35	E	1315	G	C5-C6-O6	-7.68	123.99	128.60
35	E	997	G	O4'-C1'-N9	7.68	114.34	108.20
35	E	1974	C	O4'-C1'-N1	7.68	114.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	197	C	O4'-C1'-N1	7.68	114.34	108.20
35	E	1863	C	O4'-C1'-N1	7.68	114.34	108.20
35	E	49	C	O4'-C1'-N1	7.68	114.34	108.20
35	E	1073	U	O4'-C1'-N1	7.67	114.34	108.20
35	E	1956	C	O4'-C1'-N1	7.67	114.34	108.20
35	E	1327	A	C4-C5-C6	7.67	120.84	117.00
35	E	1616	C	O4'-C1'-N1	7.67	114.34	108.20
35	E	41	G	C5-C6-O6	-7.67	124.00	128.60
35	E	59	C	O4'-C1'-N1	7.67	114.33	108.20
35	E	2292	G	C5-C6-O6	-7.67	124.00	128.60
35	E	1871	G	C5-C6-O6	-7.67	124.00	128.60
35	E	76	G	C5-C6-O6	-7.66	124.00	128.60
35	E	580	C	O4'-C1'-N1	7.66	114.33	108.20
35	E	1228	G	C5-C6-O6	-7.66	124.00	128.60
35	E	1271	G	N1-C6-O6	7.66	124.49	119.90
35	E	2173	C	O4'-C1'-N1	7.65	114.32	108.20
35	E	1369	C	O4'-C1'-N1	7.65	114.32	108.20
35	E	1862	C	O4'-C1'-N1	7.65	114.32	108.20
35	E	2000	C	O4'-C1'-N1	7.64	114.31	108.20
35	E	925	C	O4'-C1'-N1	7.64	114.31	108.20
35	E	605	G	C5-C6-O6	-7.64	124.02	128.60
35	E	1916	C	O4'-C1'-N1	7.64	114.31	108.20
35	E	2127	G	C5-C6-O6	-7.64	124.02	128.60
35	E	2195	G	C5-C6-O6	-7.64	124.02	128.60
35	E	1319	G	C5-C6-O6	-7.64	124.02	128.60
35	E	1897	U	O4'-C1'-N1	7.64	114.31	108.20
35	E	2228	C	O4'-C1'-N1	7.64	114.31	108.20
35	E	94	C	O4'-C1'-N1	7.63	114.31	108.20
35	E	279	A	C5-C6-N6	-7.63	117.59	123.70
35	E	1354	C	O4'-C1'-N1	7.63	114.31	108.20
35	E	244	G	C5-C6-O6	-7.63	124.02	128.60
35	E	357	C	O4'-C1'-N1	7.63	114.30	108.20
35	E	986	U	O4'-C1'-N1	7.63	114.30	108.20
35	E	1748	C	O4'-C1'-N1	7.62	114.30	108.20
35	E	611	G	C5-C6-O6	-7.62	124.03	128.60
35	E	12	U	O4'-C1'-N1	7.62	114.30	108.20
35	E	390	C	O4'-C1'-N1	7.62	114.30	108.20
35	E	292	U	O4'-C1'-N1	7.62	114.30	108.20
35	E	408	C	O4'-C1'-N1	7.62	114.30	108.20
35	E	481	G	C5-C6-O6	-7.62	124.03	128.60
35	E	1288	G	C5-C6-O6	-7.62	124.03	128.60
35	E	1948	G	N1-C6-O6	7.62	124.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2172	G	C5-C6-O6	-7.62	124.03	128.60
35	E	441	C	O4'-C1'-N1	7.62	114.29	108.20
35	E	303	C	O4'-C1'-N1	7.61	114.29	108.20
35	E	228	G	C5-C6-O6	-7.61	124.04	128.60
35	E	1712	U	O4'-C1'-N1	7.61	114.28	108.20
35	E	317	G	C5-C6-O6	-7.60	124.04	128.60
35	E	995	C	O4'-C1'-N1	7.60	114.28	108.20
35	E	1324	U	O4'-C1'-N1	7.60	114.28	108.20
35	E	1976	C	O4'-C1'-N1	7.60	114.28	108.20
35	E	1940	G	C5-C6-O6	-7.60	124.04	128.60
35	E	933	C	O4'-C1'-N1	7.60	114.28	108.20
35	E	1349	G	C5-C6-O6	-7.60	124.04	128.60
35	E	18	C	O4'-C1'-N1	7.60	114.28	108.20
35	E	1543	C	N3-C4-N4	7.60	123.32	118.00
35	E	2013	U	O4'-C1'-N1	7.59	114.28	108.20
35	E	213	G	N3-C2-N2	7.59	125.21	119.90
35	E	1918	C	O4'-C1'-N1	7.59	114.27	108.20
35	E	89	C	O4'-C1'-N1	7.59	114.27	108.20
35	E	490	C	O4'-C1'-N1	7.59	114.27	108.20
35	E	1634	C	O4'-C1'-N1	7.59	114.27	108.20
35	E	1666	G	C5-C6-O6	-7.59	124.05	128.60
35	E	313	G	C5-C6-O6	-7.58	124.05	128.60
35	E	1705	G	C5-C6-O6	-7.58	124.05	128.60
35	E	1703	C	O4'-C1'-N1	7.58	114.27	108.20
35	E	455	C	O4'-C1'-N1	7.58	114.26	108.20
35	E	869	G	C5-C6-O6	-7.58	124.06	128.60
35	E	1562	G	C5-C6-O6	-7.58	124.06	128.60
35	E	1310	C	O4'-C1'-N1	7.57	114.26	108.20
35	E	1944	G	C5-C6-O6	-7.57	124.06	128.60
35	E	2187	C	O4'-C1'-N1	7.57	114.26	108.20
35	E	537	C	O4'-C1'-N1	7.57	114.26	108.20
35	E	2140	U	O4'-C1'-N1	7.57	114.26	108.20
35	E	182	C	O4'-C1'-N1	7.57	114.25	108.20
35	E	1756	G	C5-C6-O6	-7.56	124.06	128.60
35	E	1188	C	N3-C4-N4	7.55	123.29	118.00
35	E	1530	C	O4'-C1'-N1	7.55	114.24	108.20
35	E	2190	U	O4'-C1'-N1	7.55	114.24	108.20
35	E	1254	C	O4'-C1'-N1	7.55	114.24	108.20
35	E	1648	U	O4'-C1'-N1	7.55	114.24	108.20
35	E	166	C	O4'-C1'-N1	7.55	114.24	108.20
35	E	206	C	O4'-C1'-N1	7.55	114.24	108.20
35	E	664	G	C5-C6-O6	-7.55	124.07	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	841	C	O4'-C1'-N1	7.55	114.24	108.20
35	E	1283	U	O4'-C1'-N1	7.55	114.24	108.20
35	E	2108	G	C5-C6-O6	-7.55	124.07	128.60
35	E	2058	C	O4'-C1'-N1	7.54	114.24	108.20
35	E	274	C	O4'-C1'-N1	7.54	114.23	108.20
35	E	2285	G	C5-C6-O6	-7.54	124.07	128.60
35	E	836	G	C5-C6-O6	-7.54	124.08	128.60
35	E	1974	C	C2-N1-C1'	7.54	127.10	118.80
35	E	842	G	C5-C6-O6	-7.54	124.08	128.60
35	E	117	C	O4'-C1'-N1	7.54	114.23	108.20
35	E	1880	U	P-O3'-C3'	7.54	128.74	119.70
35	E	130	G	C5-C6-O6	-7.53	124.08	128.60
35	E	415	U	O4'-C1'-N1	7.53	114.22	108.20
35	E	1623	G	C5-C6-O6	-7.53	124.08	128.60
35	E	239	C	O4'-C1'-N1	7.53	114.22	108.20
35	E	1747	C	O4'-C1'-N1	7.53	114.22	108.20
35	E	1223	C	O4'-C1'-N1	7.52	114.22	108.20
35	E	1269	C	O4'-C1'-N1	7.52	114.22	108.20
35	E	1571	C	O4'-C1'-N1	7.52	114.22	108.20
35	E	2154	C	O4'-C1'-N1	7.52	114.22	108.20
35	E	759	C	C6-N1-C2	-7.51	117.30	120.30
35	E	1908	U	O4'-C1'-N1	7.51	114.21	108.20
35	E	1950	G	C5-C6-O6	-7.51	124.09	128.60
34	h	181	TYR	CB-CG-CD1	7.51	125.51	121.00
35	E	662	C	O4'-C1'-N1	7.51	114.21	108.20
35	E	1639	A	C5-C6-N6	-7.51	117.69	123.70
35	E	54	C	O4'-C1'-N1	7.51	114.21	108.20
35	E	109	G	C5-C6-O6	-7.51	124.09	128.60
35	E	751	C	O4'-C1'-N1	7.51	114.21	108.20
35	E	1867	G	O4'-C1'-N9	7.51	114.21	108.20
35	E	5	U	O4'-C1'-N1	7.50	114.20	108.20
35	E	1739	G	C5-C6-O6	-7.50	124.10	128.60
35	E	58	C	O4'-C1'-N1	7.50	114.20	108.20
35	E	439	G	C5-C6-O6	-7.50	124.10	128.60
35	E	1758	C	O4'-C1'-N1	7.50	114.20	108.20
35	E	1213	G	C5-C6-O6	-7.50	124.10	128.60
35	E	956	U	O4'-C1'-N1	7.50	114.20	108.20
35	E	656	U	O4'-C1'-N1	7.50	114.20	108.20
35	E	2100	C	O4'-C1'-N1	7.50	114.20	108.20
35	E	435	G	C5-C6-O6	-7.49	124.10	128.60
35	E	458	C	O4'-C1'-N1	7.49	114.19	108.20
35	E	265	C	O4'-C1'-N1	7.49	114.19	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1932	G	C5-C6-O6	-7.49	124.11	128.60
35	E	2133	C	O4'-C1'-N1	7.49	114.19	108.20
35	E	670	G	C5-C6-O6	-7.49	124.11	128.60
35	E	1593	A	C4-C5-C6	7.49	120.74	117.00
35	E	1697	G	C5-C6-O6	-7.49	124.11	128.60
35	E	396	C	O4'-C1'-N1	7.48	114.19	108.20
35	E	2182	G	C5-C6-O6	-7.48	124.11	128.60
35	E	818	U	O4'-C1'-N1	7.48	114.18	108.20
35	E	787	C	O4'-C1'-N1	7.48	114.18	108.20
35	E	2150	G	C5-C6-O6	-7.47	124.11	128.60
35	E	259	C	N3-C4-C5	-7.47	118.91	121.90
35	E	451	G	C5-C6-O6	-7.47	124.12	128.60
35	E	1557	U	O4'-C1'-N1	7.47	114.18	108.20
35	E	1867	G	C5-C6-O6	-7.47	124.12	128.60
32	o	70	TYR	CB-CG-CD2	7.47	125.48	121.00
35	E	1602	C	O4'-C1'-N1	7.47	114.17	108.20
35	E	1744	U	O4'-C1'-N1	7.46	114.17	108.20
35	E	628	G	C5-C6-O6	-7.46	124.12	128.60
35	E	2087	C	O4'-C1'-N1	7.46	114.17	108.20
35	E	928	C	O4'-C1'-N1	7.46	114.17	108.20
35	E	175	A	C5-C6-N6	-7.46	117.73	123.70
35	E	1188	C	P-O3'-C3'	7.46	128.65	119.70
35	E	1922	G	C5-C6-O6	-7.46	124.13	128.60
35	E	1329	G	C5-C6-O6	-7.46	124.13	128.60
35	E	627	C	O4'-C1'-N1	7.45	114.16	108.20
35	E	2131	A	O4'-C1'-N9	7.45	114.16	108.20
35	E	2242	U	O4'-C1'-N1	7.45	114.16	108.20
35	E	1179	C	O4'-C1'-N1	7.45	114.16	108.20
35	E	66	U	O4'-C1'-N1	7.45	114.16	108.20
35	E	890	C	O4'-C1'-N1	7.44	114.15	108.20
35	E	1656	G	C5-C6-O6	-7.44	124.14	128.60
35	E	1372	C	O4'-C1'-N1	7.44	114.15	108.20
35	E	1382	G	C5-C6-O6	-7.43	124.14	128.60
35	E	118	C	O4'-C1'-N1	7.43	114.15	108.20
35	E	209	C	O4'-C1'-N1	7.43	114.14	108.20
35	E	212	G	C5-C6-O6	-7.43	124.14	128.60
35	E	375	C	O4'-C1'-N1	7.43	114.14	108.20
35	E	706	G	C5-C6-O6	-7.43	124.14	128.60
35	E	726	C	P-O3'-C3'	7.43	128.61	119.70
35	E	722	C	N3-C4-C5	-7.42	118.93	121.90
35	E	802	U	O4'-C1'-N1	7.42	114.14	108.20
35	E	1655	U	O4'-C1'-N1	7.42	114.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2183	U	O4'-C1'-N1	7.42	114.14	108.20
35	E	93	G	C5-C6-O6	-7.42	124.15	128.60
35	E	749	C	O4'-C1'-N1	7.42	114.13	108.20
35	E	1317	G	C5-C6-O6	-7.42	124.15	128.60
35	E	1823	G	C5-C6-O6	-7.42	124.15	128.60
35	E	969	U	O4'-C1'-N1	7.41	114.13	108.20
35	E	149	A	O4'-C1'-N9	7.41	114.13	108.20
35	E	622	G	C5-C6-O6	-7.41	124.15	128.60
35	E	1978	C	O4'-C1'-N1	7.41	114.13	108.20
35	E	679	U	O4'-C1'-N1	7.41	114.13	108.20
35	E	366	C	O4'-C1'-N1	7.40	114.12	108.20
35	E	710	A	O4'-C1'-N9	7.40	114.12	108.20
35	E	515	C	O4'-C1'-N1	7.40	114.12	108.20
35	E	1081	G	O4'-C1'-N9	7.40	114.12	108.20
35	E	1371	C	O4'-C1'-N1	7.40	114.12	108.20
35	E	1893	U	O4'-C1'-N1	7.40	114.12	108.20
35	E	2142	C	O4'-C1'-N1	7.40	114.12	108.20
35	E	1663	C	O4'-C1'-N1	7.39	114.11	108.20
35	E	2178	C	O4'-C1'-N1	7.39	114.12	108.20
35	E	2163	G	C5-C6-O6	-7.39	124.16	128.60
35	E	1305	A	C4-C5-C6	7.39	120.69	117.00
35	E	797	G	P-O3'-C3'	7.39	128.57	119.70
35	E	312	C	O4'-C1'-N1	7.38	114.10	108.20
35	E	402	C	O4'-C1'-N1	7.38	114.10	108.20
35	E	433	G	C5-C6-O6	-7.38	124.17	128.60
35	E	1260	G	C5-C6-O6	-7.38	124.17	128.60
35	E	1687	A	O4'-C1'-N9	7.38	114.10	108.20
35	E	1736	G	C5-C6-O6	-7.38	124.17	128.60
35	E	2256	U	O4'-C1'-N1	7.37	114.10	108.20
35	E	469	G	C5-C6-O6	-7.37	124.18	128.60
35	E	1352	C	O4'-C1'-N1	7.37	114.10	108.20
35	E	378	U	O4'-C1'-N1	7.37	114.09	108.20
35	E	1785	C	O4'-C1'-N1	7.37	114.09	108.20
35	E	2020	G	O4'-C1'-N9	7.37	114.10	108.20
35	E	15	U	O4'-C1'-N1	7.37	114.09	108.20
35	E	1088	A	C5-C6-N6	-7.37	117.81	123.70
35	E	1300	C	C6-N1-C1'	-7.36	111.96	120.80
35	E	1884	U	C2-N1-C1'	7.36	126.53	117.70
35	E	271	C	O4'-C1'-N1	7.36	114.09	108.20
35	E	1608	G	C5-C6-O6	-7.36	124.18	128.60
35	E	109	G	O4'-C1'-N9	7.36	114.09	108.20
35	E	616	G	C5-C6-O6	-7.36	124.19	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2254	U	O4'-C1'-N1	7.36	114.09	108.20
35	E	2186	C	O4'-C1'-N1	7.36	114.08	108.20
35	E	626	C	O4'-C1'-N1	7.35	114.08	108.20
35	E	1690	G	N1-C6-O6	7.35	124.31	119.90
35	E	758	U	O4'-C1'-N1	7.35	114.08	108.20
35	E	949	U	O4'-C1'-N1	7.35	114.08	108.20
35	E	256	A	C4-C5-C6	7.35	120.67	117.00
35	E	710	A	C4-C5-C6	7.35	120.67	117.00
35	E	1208	U	O4'-C1'-N1	7.35	114.08	108.20
35	E	1234	G	C5-C6-O6	-7.35	124.19	128.60
35	E	873	C	C2-N1-C1'	7.35	126.88	118.80
35	E	1084	G	O4'-C1'-N9	7.35	114.08	108.20
35	E	572	U	O4'-C1'-N1	7.34	114.08	108.20
35	E	2064	G	C5-C6-O6	-7.34	124.19	128.60
35	E	2203	C	O4'-C1'-N1	7.34	114.08	108.20
35	E	2230	C	O4'-C1'-N1	7.34	114.08	108.20
35	E	1997	G	C5-C6-O6	-7.34	124.19	128.60
35	E	2215	C	O4'-C1'-N1	7.34	114.07	108.20
35	E	1573	C	O4'-C1'-N1	7.34	114.07	108.20
35	E	709	C	O4'-C1'-N1	7.33	114.06	108.20
35	E	1762	G	C5-C6-O6	-7.33	124.20	128.60
35	E	669	U	O4'-C1'-N1	7.33	114.06	108.20
35	E	436	G	C5-C6-O6	-7.33	124.20	128.60
35	E	533	C	O4'-C1'-N1	7.33	114.06	108.20
35	E	892	U	O4'-C1'-N1	7.33	114.06	108.20
35	E	1895	U	O4'-C1'-N1	7.33	114.06	108.20
35	E	2061	G	C5-C6-O6	-7.33	124.20	128.60
35	E	339	C	O4'-C1'-N1	7.32	114.06	108.20
35	E	1356	C	O4'-C1'-N1	7.32	114.06	108.20
35	E	146	U	O4'-C1'-N1	7.32	114.06	108.20
35	E	353	C	N3-C4-N4	7.32	123.12	118.00
35	E	796	G	C5-C6-O6	-7.32	124.21	128.60
35	E	2196	U	O4'-C1'-N1	7.32	114.06	108.20
35	E	1845	C	O4'-C1'-N1	7.32	114.05	108.20
35	E	2261	U	O4'-C1'-N1	7.32	114.05	108.20
35	E	350	C	O4'-C1'-N1	7.32	114.05	108.20
35	E	1578	G	C5-C6-O6	-7.32	124.21	128.60
35	E	1816	G	C5-C6-O6	-7.32	124.21	128.60
35	E	1917	G	C5-C6-O6	-7.32	124.21	128.60
35	E	1856	G	C5-C6-O6	-7.31	124.21	128.60
35	E	2104	A	C4-C5-C6	7.31	120.66	117.00
35	E	2216	A	O4'-C1'-N9	7.31	114.05	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2019	C	N3-C4-N4	7.31	123.11	118.00
35	E	536	A	C5-C6-N6	-7.30	117.86	123.70
35	E	2023	C	C6-N1-C1'	-7.30	112.04	120.80
35	E	2118	G	C5-C6-O6	-7.30	124.22	128.60
35	E	2210	U	O4'-C1'-N1	7.30	114.04	108.20
35	E	1226	G	C5-C6-O6	-7.30	124.22	128.60
35	E	904	C	O4'-C1'-N1	7.30	114.04	108.20
35	E	1903	A	P-O5'-C5'	7.30	132.58	120.90
35	E	518	C	O4'-C1'-N1	7.29	114.04	108.20
35	E	1872	G	O4'-C1'-N9	7.29	114.03	108.20
35	E	1169	U	O4'-C1'-N1	7.29	114.03	108.20
35	E	1523	C	O4'-C1'-N1	7.29	114.03	108.20
35	E	748	G	C5-C6-O6	-7.28	124.23	128.60
35	E	1344	U	O4'-C1'-N1	7.28	114.02	108.20
35	E	680	U	O4'-C1'-N1	7.28	114.02	108.20
35	E	1677	C	O4'-C1'-N1	7.28	114.02	108.20
35	E	1209	C	O4'-C1'-N1	7.28	114.02	108.20
35	E	1694	G	C5-C6-O6	-7.27	124.24	128.60
35	E	814	C	C6-N1-C1'	-7.27	112.08	120.80
35	E	1206	G	C5-C6-O6	-7.27	124.24	128.60
35	E	1341	C	O4'-C1'-N1	7.26	114.01	108.20
35	E	2257	U	O4'-C1'-N1	7.26	114.01	108.20
35	E	1723	G	C5-C6-O6	-7.26	124.24	128.60
35	E	1654	U	O4'-C1'-N1	7.26	114.01	108.20
35	E	878	G	C5-C6-O6	-7.26	124.25	128.60
35	E	2082	U	O4'-C1'-N1	7.26	114.01	108.20
35	E	1303	U	O4'-C1'-N1	7.25	114.00	108.20
35	E	421	U	O4'-C1'-N1	7.25	114.00	108.20
35	E	456	C	O4'-C1'-N1	7.25	114.00	108.20
35	E	1665	C	O4'-C1'-N1	7.25	114.00	108.20
35	E	2062	U	O4'-C1'-N1	7.25	114.00	108.20
35	E	2175	C	O4'-C1'-N1	7.25	114.00	108.20
35	E	479	G	C5-C6-O6	-7.25	124.25	128.60
35	E	1719	U	O4'-C1'-N1	7.25	114.00	108.20
35	E	2075	G	C5-C6-O6	-7.25	124.25	128.60
35	E	270	C	O4'-C1'-N1	7.24	113.99	108.20
35	E	590	C	O4'-C1'-N1	7.24	113.99	108.20
35	E	1575	G	C5-C6-O6	-7.24	124.26	128.60
35	E	1607	A	C5-C6-N6	-7.24	117.91	123.70
35	E	480	C	O4'-C1'-N1	7.23	113.98	108.20
35	E	554	C	N3-C4-N4	7.23	123.06	118.00
35	E	755	U	O4'-C1'-N1	7.23	113.99	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	13	U	O4'-C1'-N1	7.23	113.98	108.20
35	E	850	U	O4'-C1'-N1	7.23	113.98	108.20
35	E	1083	G	C5-C6-O6	-7.23	124.26	128.60
35	E	2138	U	O4'-C1'-N1	7.23	113.98	108.20
35	E	1339	G	O4'-C1'-N9	7.22	113.98	108.20
35	E	1554	A	C4-C5-C6	7.22	120.61	117.00
35	E	1635	G	C5-C6-O6	-7.22	124.27	128.60
35	E	1768	A	C4-C5-C6	7.22	120.61	117.00
35	E	1278	C	O4'-C1'-N1	7.22	113.98	108.20
35	E	1629	C	O4'-C1'-N1	7.22	113.97	108.20
35	E	649	G	C5-C6-O6	-7.21	124.27	128.60
35	E	734	G	N1-C2-N3	-7.21	119.57	123.90
35	E	1668	G	C5-C6-O6	-7.21	124.27	128.60
35	E	422	U	O4'-C1'-N1	7.21	113.97	108.20
35	E	654	U	O4'-C1'-N1	7.21	113.97	108.20
35	E	1381	G	C5-C6-O6	-7.21	124.28	128.60
35	E	2143	C	O4'-C1'-N1	7.21	113.97	108.20
35	E	346	C	O4'-C1'-N1	7.21	113.96	108.20
35	E	620	C	O4'-C1'-N1	7.21	113.96	108.20
35	E	926	C	O4'-C1'-N1	7.20	113.96	108.20
35	E	1970	G	O4'-C1'-N9	7.20	113.96	108.20
35	E	2193	U	O4'-C1'-N1	7.20	113.96	108.20
35	E	1170	C	O4'-C1'-N1	7.20	113.96	108.20
35	E	1193	A	C5-C6-N6	-7.20	117.94	123.70
35	E	1229	C	O4'-C1'-N1	7.20	113.96	108.20
35	E	377	G	C5-C6-O6	-7.20	124.28	128.60
35	E	1926	G	C5-C6-O6	-7.20	124.28	128.60
35	E	1284	U	O4'-C1'-N1	7.20	113.96	108.20
35	E	1072	G	C5-C6-O6	-7.20	124.28	128.60
35	E	1295	U	O4'-C1'-N1	7.19	113.95	108.20
35	E	1721	U	O4'-C1'-N1	7.19	113.95	108.20
35	E	202	C	N3-C4-N4	7.19	123.03	118.00
35	E	1225	G	C5-C6-O6	-7.19	124.28	128.60
35	E	1692	G	C5-C6-O6	-7.19	124.28	128.60
35	E	310	U	O4'-C1'-N1	7.19	113.95	108.20
35	E	1970	G	C5-C6-O6	-7.19	124.29	128.60
35	E	584	C	N3-C4-N4	7.19	123.03	118.00
35	E	97	A	C4-C5-C6	7.19	120.59	117.00
35	E	2306	A	C5-C6-N6	-7.19	117.95	123.70
35	E	67	C	O4'-C1'-N1	7.18	113.95	108.20
35	E	921	G	C5-C6-O6	-7.18	124.29	128.60
35	E	229	G	C5-C6-O6	-7.18	124.29	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1899	C	N3-C4-N4	7.18	123.03	118.00
35	E	429	C	O4'-C1'-N1	7.18	113.94	108.20
35	E	1968	G	C5-C6-O6	-7.18	124.29	128.60
35	E	874	C	O4'-C1'-N1	7.18	113.94	108.20
35	E	994	G	C5-C6-O6	-7.18	124.29	128.60
35	E	1293	C	O4'-C1'-N1	7.17	113.94	108.20
35	E	497	C	O4'-C1'-N1	7.17	113.94	108.20
35	E	1729	C	O4'-C1'-N1	7.17	113.94	108.20
35	E	1811	C	O4'-C1'-N1	7.17	113.93	108.20
35	E	224	C	O4'-C1'-N1	7.17	113.93	108.20
35	E	1678	C	O4'-C1'-N1	7.17	113.93	108.20
35	E	1243	U	O4'-C1'-N1	7.16	113.93	108.20
35	E	1796	G	C5-C6-O6	-7.16	124.31	128.60
35	E	2253	U	O4'-C1'-N1	7.16	113.92	108.20
35	E	633	A	O4'-C1'-N9	7.15	113.92	108.20
35	E	1894	C	O4'-C1'-N1	7.15	113.92	108.20
35	E	884	A	O4'-C1'-N9	7.15	113.92	108.20
35	E	1546	C	O4'-C1'-N1	7.15	113.92	108.20
35	E	138	C	O4'-C1'-N1	7.15	113.92	108.20
35	E	794	G	C5-C6-O6	-7.15	124.31	128.60
35	E	830	C	O4'-C1'-N1	7.15	113.92	108.20
35	E	1847	C	O4'-C1'-N1	7.15	113.92	108.20
35	E	1879	U	O4'-C1'-N1	7.14	113.91	108.20
35	E	1311	C	O4'-C1'-N1	7.14	113.91	108.20
35	E	1990	U	O4'-C1'-N1	7.14	113.91	108.20
35	E	2084	U	O4'-C1'-N1	7.14	113.91	108.20
35	E	2264	A	C4-C5-C6	7.13	120.57	117.00
35	E	1791	C	O4'-C1'-N1	7.13	113.90	108.20
35	E	815	G	O4'-C1'-N9	7.13	113.90	108.20
35	E	2029	U	O4'-C1'-N1	7.13	113.90	108.20
35	E	539	G	C5-C6-O6	-7.13	124.32	128.60
35	E	1830	C	O4'-C1'-N1	7.12	113.90	108.20
35	E	1266	C	O4'-C1'-N1	7.12	113.89	108.20
35	E	790	G	C5-C6-O6	-7.12	124.33	128.60
35	E	2061	G	C4-N9-C1'	7.12	135.75	126.50
35	E	1585	C	O4'-C1'-N1	7.12	113.89	108.20
35	E	2308	C	O4'-C1'-N1	7.12	113.89	108.20
35	E	1185	A	C5-C6-N1	-7.11	114.14	117.70
35	E	388	U	O4'-C1'-N1	7.11	113.89	108.20
35	E	2057	U	O4'-C1'-N1	7.11	113.89	108.20
35	E	801	C	O4'-C1'-N1	7.10	113.88	108.20
35	E	686	U	O4'-C1'-N1	7.10	113.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	134	U	O4'-C1'-N1	7.10	113.88	108.20
35	E	962	A	C5-C6-N6	-7.10	118.02	123.70
35	E	1548	C	C6-N1-C1'	-7.10	112.28	120.80
35	E	827	U	O4'-C1'-N1	7.10	113.88	108.20
35	E	2105	C	O4'-C1'-N1	7.10	113.88	108.20
35	E	2181	U	O4'-C1'-N1	7.10	113.88	108.20
35	E	187	C	O4'-C1'-N1	7.10	113.88	108.20
35	E	1224	U	O4'-C1'-N1	7.09	113.87	108.20
35	E	1245	C	O4'-C1'-N1	7.09	113.87	108.20
35	E	671	U	O4'-C1'-N1	7.09	113.87	108.20
35	E	1348	A	C4-C5-C6	7.09	120.54	117.00
35	E	2146	U	O4'-C1'-N1	7.09	113.87	108.20
35	E	908	G	C5-C6-O6	-7.08	124.35	128.60
35	E	1347	U	O4'-C1'-N1	7.08	113.87	108.20
35	E	1667	G	N1-C6-O6	7.08	124.15	119.90
35	E	900	A	O4'-C1'-N9	7.08	113.86	108.20
35	E	1685	G	C5-C6-O6	-7.08	124.35	128.60
35	E	1714	U	O4'-C1'-N1	7.08	113.86	108.20
35	E	1947	U	O4'-C1'-N1	7.08	113.86	108.20
35	E	1377	A	O4'-C1'-N9	7.07	113.86	108.20
35	E	1326	G	C5-C6-O6	-7.07	124.36	128.60
35	E	1376	G	O4'-C1'-N9	7.07	113.86	108.20
35	E	17	C	O4'-C1'-N1	7.07	113.86	108.20
35	E	2301	C	O4'-C1'-N1	7.07	113.86	108.20
35	E	1183	G	C5-C6-O6	-7.07	124.36	128.60
35	E	1185	A	O4'-C1'-N9	7.07	113.85	108.20
35	E	1331	U	O4'-C1'-N1	7.07	113.85	108.20
35	E	1379	U	O4'-C1'-N1	7.07	113.85	108.20
35	E	1622	G	C5-C6-O6	-7.07	124.36	128.60
35	E	85	U	O4'-C1'-N1	7.07	113.85	108.20
35	E	1694	G	O4'-C1'-N9	7.07	113.85	108.20
35	E	368	G	O4'-C1'-N9	7.06	113.85	108.20
35	E	1909	U	O4'-C1'-N1	7.06	113.85	108.20
35	E	225	C	O4'-C1'-N1	7.06	113.85	108.20
35	E	534	C	O4'-C1'-N1	7.06	113.85	108.20
35	E	1075	G	C5-C6-O6	-7.06	124.37	128.60
35	E	2318	U	O4'-C1'-N1	7.05	113.84	108.20
35	E	465	G	C5-C6-O6	-7.05	124.37	128.60
35	E	2201	U	O4'-C1'-N1	7.05	113.84	108.20
35	E	573	U	O4'-C1'-N1	7.05	113.84	108.20
35	E	32	U	O4'-C1'-N1	7.05	113.84	108.20
35	E	1716	C	O4'-C1'-N1	7.05	113.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1901	G	C5-C6-O6	-7.05	124.37	128.60
35	E	2161	U	O4'-C1'-N1	7.05	113.84	108.20
35	E	2219	C	O4'-C1'-N1	7.05	113.84	108.20
35	E	92	G	C5-C6-O6	-7.04	124.37	128.60
35	E	1640	G	C5-C6-O6	-7.04	124.37	128.60
35	E	384	G	C5-C6-O6	-7.04	124.38	128.60
35	E	407	G	C5-C6-O6	-7.04	124.38	128.60
35	E	1337	G	C5-C6-O6	-7.04	124.38	128.60
35	E	27	U	O4'-C1'-N1	7.04	113.83	108.20
35	E	1871	G	O4'-C1'-N9	7.04	113.83	108.20
35	E	115	U	O4'-C1'-N1	7.04	113.83	108.20
35	E	1285	C	O4'-C1'-N1	7.04	113.83	108.20
35	E	534	C	N3-C4-N4	7.04	122.92	118.00
35	E	1538	G	C5-C6-O6	-7.04	124.38	128.60
35	E	2012	C	O4'-C1'-N1	7.04	113.83	108.20
35	E	745	C	N3-C4-N4	7.03	122.92	118.00
35	E	779	A	C4-C5-C6	7.03	120.52	117.00
35	E	1624	C	O4'-C1'-N1	7.03	113.82	108.20
35	E	178	U	O4'-C1'-N1	7.03	113.82	108.20
35	E	1252	C	O4'-C1'-N1	7.03	113.82	108.20
35	E	155	U	O4'-C1'-N1	7.03	113.82	108.20
35	E	719	G	O4'-C1'-N9	7.03	113.82	108.20
35	E	883	C	N3-C4-N4	7.03	122.92	118.00
35	E	1184	C	O4'-C1'-N1	7.03	113.82	108.20
35	E	1600	A	C4-C5-C6	7.02	120.51	117.00
35	E	1536	C	O4'-C1'-N1	7.02	113.82	108.20
35	E	1618	G	C5-C6-O6	-7.02	124.39	128.60
35	E	441	C	N3-C4-N4	7.02	122.92	118.00
35	E	1798	G	C5-C6-O6	-7.02	124.39	128.60
35	E	50	C	O4'-C1'-N1	7.02	113.81	108.20
35	E	964	U	O4'-C1'-N1	7.02	113.81	108.20
35	E	1081	G	C5-C6-O6	-7.02	124.39	128.60
35	E	280	C	O4'-C1'-N1	7.02	113.81	108.20
35	E	724	A	N1-C2-N3	7.02	132.81	129.30
35	E	1556	C	O4'-C1'-N1	7.02	113.81	108.20
35	E	643	C	O4'-C1'-N1	7.01	113.81	108.20
35	E	266	U	O4'-C1'-N1	7.01	113.81	108.20
35	E	772	U	O4'-C1'-C2'	-7.01	98.79	105.80
35	E	1760	G	N1-C6-O6	7.01	124.11	119.90
35	E	298	C	N3-C4-N4	7.01	122.91	118.00
35	E	1342	C	O4'-C1'-N1	7.01	113.81	108.20
35	E	286	G	C5-C6-O6	-7.01	124.39	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	708	G	O4'-C1'-N9	7.01	113.81	108.20
35	E	1171	C	O4'-C1'-N1	7.01	113.81	108.20
35	E	2160	U	O4'-C1'-N1	7.01	113.81	108.20
35	E	1820	U	O4'-C1'-N1	7.00	113.80	108.20
35	E	918	G	C5-C6-O6	-7.00	124.40	128.60
35	E	1364	G	C5-C6-O6	-7.00	124.40	128.60
35	E	2034	A	O4'-C1'-N9	7.00	113.80	108.20
35	E	612	U	O4'-C1'-N1	7.00	113.80	108.20
35	E	971	G	O4'-C1'-N9	7.00	113.80	108.20
35	E	1928	U	O4'-C1'-N1	7.00	113.80	108.20
35	E	14	C	O4'-C1'-N1	6.99	113.79	108.20
35	E	289	G	C5-C6-O6	-6.99	124.40	128.60
35	E	642	U	O4'-C1'-N1	6.99	113.79	108.20
35	E	897	U	O4'-C1'-N1	6.99	113.79	108.20
35	E	1921	G	C5-C6-O6	-6.99	124.41	128.60
35	E	1550	C	O4'-C1'-N1	6.99	113.79	108.20
35	E	234	U	O4'-C1'-N1	6.99	113.79	108.20
35	E	1949	U	O4'-C1'-N1	6.98	113.79	108.20
35	E	2086	G	C5-C6-O6	-6.98	124.41	128.60
35	E	459	U	O4'-C1'-N1	6.98	113.78	108.20
35	E	471	C	O4'-C1'-N1	6.98	113.78	108.20
35	E	638	C	O4'-C1'-N1	6.98	113.78	108.20
35	E	667	G	C5-C6-O6	-6.98	124.41	128.60
35	E	914	C	O4'-C1'-N1	6.98	113.78	108.20
35	E	1636	U	O4'-C1'-N1	6.98	113.78	108.20
35	E	652	U	O4'-C1'-N1	6.98	113.78	108.20
35	E	705	G	C5-C6-O6	-6.98	124.41	128.60
35	E	1872	G	C5-C6-O6	-6.98	124.41	128.60
35	E	1961	A	C4-C5-C6	6.98	120.49	117.00
35	E	613	C	O4'-C1'-N1	6.97	113.78	108.20
35	E	264	C	O4'-C1'-N1	6.97	113.78	108.20
35	E	554	C	O4'-C1'-N1	6.97	113.78	108.20
35	E	1718	U	O4'-C1'-N1	6.97	113.78	108.20
35	E	1589	C	O4'-C1'-N1	6.97	113.77	108.20
35	E	637	C	O4'-C1'-N1	6.96	113.77	108.20
35	E	859	C	O4'-C1'-N1	6.96	113.77	108.20
35	E	1198	G	C5-C6-O6	-6.96	124.42	128.60
35	E	2019	C	O4'-C1'-N1	6.96	113.77	108.20
35	E	731	U	O4'-C1'-N1	6.96	113.77	108.20
26	j	100	TYR	CB-CG-CD1	6.96	125.17	121.00
35	E	1806	C	O4'-C1'-N1	6.96	113.76	108.20
35	E	546	U	C2-N1-C1'	6.95	126.04	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1576	G	N1-C6-O6	6.95	124.07	119.90
35	E	1198	G	P-O3'-C3'	6.95	128.04	119.70
35	E	617	U	O4'-C1'-N1	6.95	113.76	108.20
35	E	1351	C	O4'-C1'-N1	6.95	113.76	108.20
35	E	1903	A	O4'-C1'-N9	6.95	113.76	108.20
35	E	210	A	C5-C6-N6	-6.95	118.14	123.70
35	E	1755	G	C5-C6-O6	-6.95	124.43	128.60
35	E	150	U	O4'-C1'-N1	6.94	113.75	108.20
35	E	2228	C	N3-C4-N4	6.94	122.86	118.00
35	E	657	U	O4'-C1'-N1	6.94	113.75	108.20
35	E	726	C	O4'-C1'-N1	6.94	113.75	108.20
35	E	910	A	C5-C6-N6	-6.94	118.15	123.70
35	E	1931	U	O4'-C1'-N1	6.94	113.75	108.20
35	E	2162	U	O4'-C1'-N1	6.94	113.75	108.20
35	E	528	U	O4'-C1'-N1	6.93	113.75	108.20
35	E	824	G	C5-C6-O6	-6.93	124.44	128.60
35	E	987	G	O4'-C1'-N9	6.93	113.75	108.20
35	E	353	C	O4'-C1'-N1	6.93	113.75	108.20
35	E	2021	G	C5-C6-O6	-6.93	124.44	128.60
35	E	2128	C	O4'-C1'-N1	6.93	113.75	108.20
35	E	305	U	O4'-C1'-N1	6.93	113.75	108.20
35	E	1544	U	O4'-C1'-N1	6.93	113.75	108.20
35	E	346	C	N3-C4-N4	6.93	122.85	118.00
35	E	789	C	O4'-C1'-N1	6.93	113.74	108.20
35	E	1322	G	C5-C6-O6	-6.93	124.44	128.60
35	E	752	U	O4'-C1'-N1	6.93	113.74	108.20
35	E	2252	U	O4'-C1'-N1	6.93	113.74	108.20
35	E	91	U	O4'-C1'-N1	6.92	113.74	108.20
35	E	719	G	C5-C6-O6	-6.92	124.45	128.60
35	E	938	G	C5-C6-O6	-6.92	124.45	128.60
35	E	1614	G	C5-C6-O6	-6.92	124.45	128.60
35	E	323	U	O4'-C1'-N1	6.92	113.74	108.20
35	E	618	G	C5-C6-O6	-6.92	124.45	128.60
35	E	1772	G	C5-C6-O6	-6.92	124.45	128.60
35	E	1896	C	O4'-C1'-N1	6.92	113.74	108.20
35	E	416	U	O4'-C1'-N1	6.92	113.74	108.20
35	E	424	G	C5-C6-O6	-6.92	124.45	128.60
35	E	970	G	O4'-C1'-N9	6.92	113.73	108.20
35	E	2250	U	O4'-C1'-N1	6.92	113.73	108.20
35	E	2282	C	O4'-C1'-N1	6.91	113.73	108.20
35	E	565	G	N1-C6-O6	6.91	124.05	119.90
35	E	37	U	O4'-C1'-N1	6.91	113.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	336	C	O4'-C1'-N1	6.91	113.72	108.20
35	E	492	A	C5-C6-N6	-6.91	118.18	123.70
35	E	833	A	O4'-C1'-N9	6.91	113.72	108.20
35	E	1810	C	O4'-C1'-N1	6.91	113.72	108.20
35	E	2074	G	C5-C6-O6	-6.91	124.46	128.60
35	E	550	U	O4'-C1'-N1	6.90	113.72	108.20
35	E	614	U	O4'-C1'-N1	6.90	113.72	108.20
35	E	750	C	O4'-C1'-N1	6.90	113.72	108.20
35	E	780	C	O4'-C1'-N1	6.90	113.72	108.20
35	E	77	C	N3-C4-N4	6.90	122.83	118.00
35	E	179	G	C5-C6-O6	-6.90	124.46	128.60
35	E	2180	U	O4'-C1'-N1	6.89	113.72	108.20
35	E	2053	G	C5-C6-O6	-6.89	124.47	128.60
35	E	1713	G	C5-C6-O6	-6.89	124.47	128.60
35	E	114	C	O4'-C1'-N1	6.89	113.71	108.20
35	E	164	G	C5-C6-O6	-6.89	124.47	128.60
35	E	2207	U	O4'-C1'-N1	6.89	113.71	108.20
26	j	100	TYR	CB-CG-CD2	-6.88	116.87	121.00
35	E	51	A	C4-C5-C6	6.88	120.44	117.00
35	E	1864	C	N3-C4-N4	6.88	122.82	118.00
35	E	1873	G	C4-N9-C1'	-6.88	117.55	126.50
35	E	309	G	C5-C6-O6	-6.88	124.47	128.60
35	E	99	U	O4'-C1'-N1	6.88	113.71	108.20
35	E	137	C	N3-C4-N4	6.88	122.82	118.00
35	E	1706	A	C4-C5-C6	6.88	120.44	117.00
35	E	1906	C	C6-N1-C1'	-6.88	112.54	120.80
35	E	1873	G	C8-N9-C1'	6.88	135.94	127.00
35	E	2136	A	C5-C6-N6	-6.88	118.20	123.70
35	E	2280	A	C4-C5-C6	6.88	120.44	117.00
35	E	267	U	O4'-C1'-N1	6.88	113.70	108.20
35	E	327	U	O4'-C1'-N1	6.88	113.70	108.20
35	E	570	U	O4'-C1'-N1	6.88	113.70	108.20
35	E	729	C	O4'-C1'-N1	6.88	113.70	108.20
35	E	948	U	O4'-C1'-N1	6.88	113.70	108.20
35	E	1757	U	O4'-C1'-N1	6.88	113.70	108.20
35	E	301	U	O4'-C1'-N1	6.87	113.70	108.20
35	E	446	A	C4-C5-C6	6.87	120.44	117.00
35	E	511	G	C5-C6-O6	-6.87	124.48	128.60
35	E	2212	G	C5-C6-O6	-6.87	124.48	128.60
35	E	362	C	O4'-C1'-N1	6.87	113.69	108.20
35	E	2303	U	O4'-C1'-N1	6.86	113.69	108.20
35	E	592	A	C4-C5-C6	6.86	120.43	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	797	G	C5-C6-O6	-6.86	124.48	128.60
35	E	1321	G	C5-C6-O6	-6.86	124.48	128.60
35	E	160	A	C5-C6-N6	-6.86	118.21	123.70
35	E	247	U	O4'-C1'-N1	6.85	113.68	108.20
35	E	2025	U	O4'-C1'-N1	6.85	113.68	108.20
35	E	2276	U	O4'-C1'-N1	6.85	113.68	108.20
35	E	2010	G	C5-C6-O6	-6.85	124.49	128.60
35	E	1172	C	O4'-C1'-N1	6.85	113.68	108.20
35	E	52	U	O4'-C1'-N1	6.85	113.68	108.20
35	E	163	C	O4'-C1'-N1	6.85	113.68	108.20
35	E	714	G	C5-C6-O6	-6.85	124.49	128.60
35	E	1770	U	O4'-C1'-N1	6.85	113.68	108.20
35	E	1780	G	C5-C6-O6	-6.85	124.49	128.60
35	E	1969	G	C5-C6-O6	-6.85	124.49	128.60
35	E	1819	U	O4'-C1'-N1	6.85	113.68	108.20
35	E	1556	C	N3-C4-N4	6.84	122.79	118.00
35	E	1672	C	O4'-C1'-N1	6.84	113.67	108.20
35	E	342	U	O4'-C1'-N1	6.84	113.67	108.20
35	E	1632	G	C5-C6-O6	-6.84	124.49	128.60
35	E	1813	G	C5-C6-O6	-6.84	124.49	128.60
35	E	2177	U	O4'-C1'-N1	6.84	113.67	108.20
35	E	20	G	C5-C6-O6	-6.84	124.50	128.60
35	E	1253	G	C5-C6-O6	-6.84	124.50	128.60
35	E	1915	G	C5-C6-O6	-6.84	124.50	128.60
35	E	154	U	O4'-C1'-N1	6.84	113.67	108.20
35	E	1856	G	O4'-C1'-N9	6.84	113.67	108.20
35	E	40	A	C4-C5-C6	6.84	120.42	117.00
35	E	1754	U	O4'-C1'-N1	6.84	113.67	108.20
35	E	2091	U	O4'-C1'-N1	6.84	113.67	108.20
35	E	171	U	O4'-C1'-N1	6.83	113.67	108.20
35	E	947	U	O4'-C1'-N1	6.83	113.67	108.20
35	E	1617	G	C5-C6-O6	-6.83	124.50	128.60
35	E	1621	U	O4'-C1'-N1	6.83	113.67	108.20
35	E	2012	C	N3-C4-N4	6.83	122.78	118.00
35	E	2185	U	O4'-C1'-N1	6.83	113.67	108.20
35	E	937	C	N3-C4-N4	6.83	122.78	118.00
35	E	775	A	P-O3'-C3'	6.82	127.89	119.70
35	E	1297	C	O4'-C1'-N1	6.82	113.66	108.20
35	E	1631	A	O4'-C1'-N9	6.82	113.66	108.20
35	E	88	G	C5-C6-O6	-6.82	124.51	128.60
35	E	895	A	C4-C5-C6	6.82	120.41	117.00
35	E	973	G	C5-C6-O6	-6.82	124.51	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1204	U	O4'-C1'-N1	6.82	113.66	108.20
35	E	551	U	O4'-C1'-N1	6.82	113.66	108.20
35	E	924	G	C5-C6-O6	-6.82	124.51	128.60
35	E	934	C	O4'-C1'-N1	6.82	113.65	108.20
35	E	2030	G	C5-C6-O6	-6.82	124.51	128.60
35	E	631	G	C5-C6-O6	-6.82	124.51	128.60
35	E	806	C	O4'-C1'-N1	6.82	113.65	108.20
35	E	965	C	O4'-C1'-N1	6.82	113.65	108.20
35	E	2027	C	C2-N1-C1'	6.81	126.29	118.80
35	E	128	U	O4'-C1'-N1	6.81	113.65	108.20
35	E	308	C	O4'-C1'-N1	6.81	113.65	108.20
35	E	574	U	O4'-C1'-N1	6.81	113.65	108.20
35	E	630	G	C5-C6-O6	-6.81	124.52	128.60
35	E	1696	G	C5-C6-O6	-6.81	124.51	128.60
35	E	1221	U	O4'-C1'-N1	6.81	113.65	108.20
35	E	1720	C	O4'-C1'-N1	6.81	113.65	108.20
35	E	1972	G	C5-C6-O6	-6.81	124.52	128.60
35	E	1998	A	C5-C6-N6	-6.81	118.25	123.70
35	E	899	G	C5-C6-O6	-6.80	124.52	128.60
35	E	1993	G	C5-C6-O6	-6.80	124.52	128.60
35	E	998	C	O4'-C1'-N1	6.80	113.64	108.20
35	E	896	U	O4'-C1'-N1	6.80	113.64	108.20
35	E	1187	C	N3-C4-C5	-6.80	119.18	121.90
35	E	2076	A	O4'-C1'-N9	6.80	113.64	108.20
35	E	2213	G	C5-C6-O6	-6.80	124.52	128.60
35	E	29	U	O4'-C1'-N1	6.80	113.64	108.20
35	E	372	U	O4'-C1'-N1	6.80	113.64	108.20
35	E	727	C	O4'-C1'-N1	6.80	113.64	108.20
35	E	1281	U	O4'-C1'-N1	6.80	113.64	108.20
35	E	116	G	C5-C6-O6	-6.80	124.52	128.60
35	E	252	G	C5-C6-O6	-6.80	124.52	128.60
35	E	1691	G	C5-C6-O6	-6.80	124.52	128.60
35	E	1883	C	O4'-C1'-N1	6.80	113.64	108.20
35	E	1913	U	O4'-C1'-N1	6.80	113.64	108.20
35	E	1933	G	C5-C6-O6	-6.80	124.52	128.60
35	E	2099	G	N1-C6-O6	6.80	123.98	119.90
35	E	397	G	C5-C6-O6	-6.79	124.52	128.60
35	E	688	G	C5-C6-O6	-6.79	124.52	128.60
35	E	437	G	O4'-C1'-N9	6.79	113.64	108.20
35	E	500	A	C4-C5-C6	6.79	120.40	117.00
35	E	893	G	C5-C6-O6	-6.79	124.52	128.60
35	E	1963	G	C5-C6-O6	-6.79	124.53	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2145	A	C4-C5-C6	6.79	120.39	117.00
35	E	1825	A	C4-C5-C6	6.79	120.39	117.00
35	E	759	C	O4'-C1'-N1	6.79	113.63	108.20
35	E	819	G	C5-C6-O6	-6.79	124.53	128.60
35	E	909	G	C5-C6-O6	-6.79	124.53	128.60
35	E	90	A	C4-C5-C6	6.78	120.39	117.00
35	E	693	G	C5-C6-O6	-6.78	124.53	128.60
35	E	2243	U	O4'-C1'-N1	6.78	113.62	108.20
35	E	379	G	C5-C6-O6	-6.78	124.53	128.60
3	r	135	TRP	C-N-CA	6.78	136.53	122.30
35	E	144	A	C5-C6-N6	-6.78	118.28	123.70
35	E	966	C	O4'-C1'-N1	6.78	113.62	108.20
35	E	2017	G	C5-C6-O6	-6.78	124.53	128.60
35	E	2022	A	O4'-C1'-N9	6.78	113.62	108.20
35	E	426	U	O4'-C1'-N1	6.78	113.62	108.20
35	E	1688	C	N3-C4-N4	6.78	122.74	118.00
35	E	1717	U	O4'-C1'-N1	6.78	113.62	108.20
35	E	2235	C	N3-C4-N4	6.77	122.74	118.00
35	E	981	G	C5-C6-O6	-6.77	124.54	128.60
35	E	2298	G	C5-C6-O6	-6.77	124.54	128.60
35	E	1942	A	O4'-C1'-N9	6.77	113.62	108.20
35	E	252	G	O4'-C1'-N9	6.77	113.61	108.20
35	E	772	U	C4'-C3'-C2'	-6.77	95.83	102.60
35	E	1304	C	O4'-C1'-N1	6.77	113.61	108.20
35	E	1531	G	C5-C6-O6	-6.77	124.54	128.60
35	E	2101	G	C5-C6-O6	-6.77	124.54	128.60
35	E	1722	C	O4'-C1'-N1	6.77	113.61	108.20
35	E	2229	A	C5-C6-N6	-6.77	118.29	123.70
35	E	302	U	O4'-C1'-N1	6.77	113.61	108.20
35	E	1941	C	N3-C4-N4	6.77	122.74	118.00
35	E	2073	G	C5-C6-O6	-6.77	124.54	128.60
5	u	43	TYR	CB-CG-CD2	-6.76	116.94	121.00
35	E	172	A	C4-C5-C6	6.76	120.38	117.00
35	E	2291	U	O4'-C1'-N1	6.76	113.61	108.20
35	E	170	C	O4'-C1'-N1	6.76	113.61	108.20
35	E	1550	C	N3-C4-N4	6.76	122.73	118.00
35	E	1698	A	C4-C5-C6	6.76	120.38	117.00
35	E	2155	U	O4'-C1'-N1	6.76	113.61	108.20
35	E	1227	U	O4'-C1'-N1	6.76	113.61	108.20
35	E	2280	A	C5-C6-N6	-6.76	118.30	123.70
35	E	1954	C	O4'-C1'-N1	6.75	113.60	108.20
35	E	621	A	C4-C5-C6	6.75	120.38	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1765	G	C5-C6-O6	-6.75	124.55	128.60
35	E	819	G	P-O3'-C3'	6.75	127.80	119.70
35	E	687	U	O4'-C1'-N1	6.75	113.60	108.20
35	E	1902	G	C5-C6-O6	-6.75	124.55	128.60
35	E	419	G	C5-C6-O6	-6.75	124.55	128.60
35	E	919	G	C5-C6-O6	-6.75	124.55	128.60
35	E	461	C	O4'-C1'-N1	6.75	113.60	108.20
35	E	16	G	C5-C6-O6	-6.74	124.55	128.60
35	E	557	U	O4'-C1'-N1	6.74	113.59	108.20
35	E	629	C	O4'-C1'-N1	6.74	113.59	108.20
35	E	1191	G	C2'-C3'-O3'	6.74	124.49	113.70
35	E	839	C	O4'-C1'-N1	6.74	113.59	108.20
35	E	1977	G	C5-C6-O6	-6.74	124.56	128.60
35	E	494	U	O4'-C1'-N1	6.74	113.59	108.20
35	E	776	G	C5-C6-O6	-6.74	124.56	128.60
35	E	1287	A	C5-C6-N6	-6.74	118.31	123.70
35	E	1580	G	C5-C6-O6	-6.74	124.56	128.60
35	E	1875	G	C5-C6-O6	-6.74	124.56	128.60
35	E	400	G	C5-C6-O6	-6.74	124.56	128.60
35	E	834	G	C5-C6-O6	-6.74	124.56	128.60
35	E	274	C	N3-C4-N4	6.74	122.72	118.00
35	E	697	G	C5-C6-O6	-6.73	124.56	128.60
35	E	1167	C	N3-C4-N4	6.73	122.71	118.00
35	E	1588	U	O4'-C1'-N1	6.73	113.59	108.20
35	E	84	C	N3-C4-N4	6.73	122.71	118.00
35	E	984	A	C5-C6-N6	-6.73	118.31	123.70
35	E	985	G	O4'-C1'-N9	6.73	113.59	108.20
35	E	261	A	C5-C6-N6	-6.73	118.32	123.70
35	E	2031	A	C4-C5-C6	6.73	120.36	117.00
35	E	2109	G	C5-C6-O6	-6.73	124.56	128.60
35	E	1829	C	O4'-C1'-N1	6.73	113.58	108.20
35	E	298	C	O4'-C1'-N1	6.73	113.58	108.20
35	E	1358	G	C5-C6-O6	-6.72	124.56	128.60
35	E	2308	C	N3-C4-N4	6.72	122.71	118.00
25	i	116	PHE	CB-CG-CD1	6.72	125.51	120.80
35	E	194	U	O4'-C1'-N1	6.72	113.58	108.20
35	E	354	U	O4'-C1'-N1	6.72	113.58	108.20
35	E	923	A	C4-C5-C6	6.72	120.36	117.00
35	E	1849	U	O4'-C1'-N1	6.72	113.58	108.20
35	E	2191	G	O4'-C1'-N9	6.72	113.58	108.20
35	E	561	A	C5-C6-N6	-6.72	118.33	123.70
35	E	987	G	C5-C6-O6	-6.72	124.57	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1987	A	C4-C5-C6	6.72	120.36	117.00
35	E	259	C	N3-C4-N4	6.71	122.70	118.00
35	E	871	G	C5-C6-O6	-6.71	124.57	128.60
35	E	1599	A	C4-C5-C6	6.71	120.36	117.00
35	E	2230	C	N3-C4-N4	6.71	122.70	118.00
35	E	474	C	O4'-C1'-N1	6.71	113.57	108.20
35	E	801	C	N3-C4-N4	6.71	122.70	118.00
35	E	997	G	C5-C6-O6	-6.71	124.57	128.60
35	E	1641	C	O4'-C1'-N1	6.71	113.57	108.20
35	E	2144	G	C5-C6-O6	-6.71	124.57	128.60
35	E	443	G	C5-C6-O6	-6.71	124.57	128.60
35	E	1383	G	C5-C6-O6	-6.71	124.58	128.60
35	E	1542	U	O4'-C1'-N1	6.71	113.57	108.20
35	E	1912	U	O4'-C1'-N1	6.71	113.57	108.20
35	E	737	U	O4'-C1'-N1	6.71	113.56	108.20
35	E	1084	G	C5-C6-O6	-6.71	124.58	128.60
35	E	341	U	O4'-C1'-N1	6.71	113.56	108.20
35	E	559	U	O4'-C1'-N1	6.71	113.56	108.20
35	E	175	A	C4-C5-C6	6.70	120.35	117.00
35	E	248	G	C5-C6-O6	-6.70	124.58	128.60
35	E	522	A	C5-C6-N1	-6.70	114.35	117.70
35	E	1528	C	O4'-C1'-N1	6.70	113.56	108.20
35	E	903	G	C5-C6-O6	-6.70	124.58	128.60
35	E	930	G	C5-C6-O6	-6.70	124.58	128.60
35	E	1236	G	C5-C6-O6	-6.70	124.58	128.60
35	E	58	C	N3-C4-N4	6.70	122.69	118.00
35	E	95	U	O4'-C1'-N1	6.70	113.56	108.20
35	E	460	U	O4'-C1'-N1	6.70	113.56	108.20
35	E	129	U	O4'-C1'-N1	6.69	113.56	108.20
35	E	1296	U	O4'-C1'-N1	6.69	113.55	108.20
35	E	33	U	O4'-C1'-N1	6.69	113.55	108.20
35	E	172	A	C5-C6-N1	-6.69	114.36	117.70
35	E	505	A	C4-C5-C6	6.69	120.34	117.00
35	E	613	C	N3-C4-N4	6.69	122.68	118.00
35	E	791	G	C5-C6-O6	-6.69	124.59	128.60
35	E	1615	A	C4-C5-C6	6.69	120.34	117.00
35	E	1768	A	C5-C6-N1	-6.68	114.36	117.70
35	E	1924	G	C5-C6-O6	-6.68	124.59	128.60
35	E	461	C	N3-C4-N4	6.68	122.68	118.00
35	E	1741	G	C5-C6-O6	-6.68	124.59	128.60
35	E	2020	G	C5-C6-O6	-6.68	124.59	128.60
35	E	591	G	O4'-C1'-N9	6.68	113.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1805	G	C5-C6-O6	-6.68	124.59	128.60
35	E	1930	U	O4'-C1'-N1	6.68	113.54	108.20
35	E	1995	G	C5-C6-O6	-6.68	124.59	128.60
35	E	2106	G	C5-C6-O6	-6.68	124.59	128.60
35	E	2311	G	C5-C6-O6	-6.67	124.60	128.60
35	E	69	C	N3-C4-N4	6.67	122.67	118.00
35	E	70	U	O4'-C1'-N1	6.67	113.54	108.20
35	E	359	U	O4'-C1'-N1	6.67	113.54	108.20
35	E	768	G	C5-C6-O6	-6.67	124.60	128.60
35	E	991	C	O4'-C1'-N1	6.67	113.53	108.20
35	E	2307	G	C5-C6-O6	-6.67	124.60	128.60
35	E	759	C	N3-C4-C5	-6.67	119.23	121.90
35	E	849	U	O4'-C1'-N1	6.67	113.53	108.20
35	E	982	G	C5-C6-O6	-6.67	124.60	128.60
35	E	224	C	N3-C4-N4	6.67	122.67	118.00
35	E	236	C	N3-C4-N4	6.66	122.67	118.00
35	E	1328	A	C4-C5-C6	6.66	120.33	117.00
35	E	496	U	O4'-C1'-N1	6.66	113.53	108.20
35	E	1967	U	O4'-C1'-N1	6.66	113.53	108.20
35	E	213	G	C5-C6-O6	-6.66	124.61	128.60
35	E	1334	U	O4'-C1'-N1	6.66	113.53	108.20
35	E	1612	U	O4'-C1'-N1	6.66	113.53	108.20
35	E	1759	G	C5-C6-O6	-6.66	124.60	128.60
35	E	593	G	C5-C6-O6	-6.66	124.61	128.60
35	E	602	G	C5-C6-O6	-6.66	124.61	128.60
35	E	808	G	C5-C6-O6	-6.66	124.61	128.60
35	E	1276	G	C5-C6-O6	-6.66	124.61	128.60
35	E	2269	G	C5-C6-O6	-6.66	124.61	128.60
35	E	2293	U	O4'-C1'-N1	6.66	113.52	108.20
35	E	1	G	O4'-C1'-N9	6.65	113.52	108.20
35	E	591	G	C5-C6-O6	-6.65	124.61	128.60
35	E	920	A	C5-C6-N6	-6.65	118.38	123.70
35	E	1174	C	O4'-C1'-N1	6.65	113.52	108.20
35	E	1214	G	C5-C6-O6	-6.65	124.61	128.60
35	E	1923	U	O4'-C1'-N1	6.65	113.52	108.20
35	E	1980	C	N3-C4-N4	6.65	122.66	118.00
35	E	634	A	C5-C6-N6	-6.65	118.38	123.70
35	E	857	G	O4'-C1'-N9	6.65	113.52	108.20
35	E	181	A	C4-C5-C6	6.65	120.32	117.00
35	E	1603	U	O4'-C1'-N1	6.64	113.51	108.20
35	E	609	A	C4-C5-C6	6.64	120.32	117.00
35	E	634	A	C4-C5-C6	6.64	120.32	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	140	C	O4'-C1'-N1	6.64	113.51	108.20
35	E	2134	A	C4-C5-C6	6.64	120.32	117.00
35	E	1278	C	N3-C4-N4	6.63	122.64	118.00
35	E	216	A	O4'-C1'-N9	6.63	113.51	108.20
35	E	583	C	O4'-C1'-N1	6.63	113.51	108.20
35	E	726	C	N3-C4-C5	-6.63	119.25	121.90
35	E	701	C	O4'-C1'-N1	6.63	113.50	108.20
35	E	368	G	C5-C6-O6	-6.63	124.62	128.60
35	E	805	C	O4'-C1'-N1	6.63	113.50	108.20
35	E	1198	G	O4'-C1'-N9	6.63	113.50	108.20
35	E	1567	C	N3-C4-N4	6.63	122.64	118.00
35	E	834	G	O4'-C1'-N9	6.63	113.50	108.20
35	E	868	U	O4'-C1'-N1	6.63	113.50	108.20
35	E	1534	A	C5-C6-N1	-6.63	114.39	117.70
35	E	1582	G	C5-C6-O6	-6.63	124.62	128.60
35	E	1590	G	C5-C6-O6	-6.63	124.62	128.60
35	E	2305	C	O4'-C1'-N1	6.63	113.50	108.20
35	E	375	C	N3-C4-N4	6.62	122.64	118.00
35	E	1682	U	O4'-C1'-N1	6.62	113.50	108.20
35	E	2179	G	C5-C6-O6	-6.62	124.63	128.60
35	E	1272	C	N3-C4-N4	6.62	122.63	118.00
35	E	25	C	O4'-C1'-N1	6.62	113.50	108.20
35	E	1583	U	O4'-C1'-N1	6.62	113.50	108.20
35	E	1767	G	C5-C6-O6	-6.62	124.63	128.60
35	E	901	A	O4'-C1'-N9	6.62	113.49	108.20
35	E	1200	A	C5-C6-N6	-6.62	118.41	123.70
35	E	1551	G	C5-C6-O6	-6.62	124.63	128.60
35	E	1738	G	C5-C6-O6	-6.62	124.63	128.60
35	E	937	C	O4'-C1'-N1	6.61	113.49	108.20
35	E	965	C	N3-C4-N4	6.61	122.63	118.00
35	E	1989	G	C5-C6-O6	-6.61	124.63	128.60
35	E	2188	G	C5-C6-O6	-6.61	124.63	128.60
35	E	237	A	O4'-C1'-N9	6.61	113.49	108.20
35	E	691	U	O4'-C1'-N1	6.61	113.49	108.20
35	E	1799	A	C4-C5-C6	6.61	120.30	117.00
35	E	1868	G	O4'-C1'-N9	6.61	113.48	108.20
35	E	2316	U	O4'-C1'-N1	6.61	113.48	108.20
35	E	2204	A	C4-C5-C6	6.60	120.30	117.00
35	E	411	G	C5-C6-O6	-6.60	124.64	128.60
35	E	1545	U	O4'-C1'-N1	6.60	113.48	108.20
35	E	1643	U	O4'-C1'-N1	6.60	113.48	108.20
35	E	2054	G	C5-C6-O6	-6.60	124.64	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	418	G	C5-C6-O6	-6.60	124.64	128.60
35	E	1318	U	O4'-C1'-N1	6.60	113.48	108.20
35	E	2092	A	C5-C6-N6	-6.60	118.42	123.70
35	E	524	G	O4'-C1'-N9	6.60	113.48	108.20
35	E	749	C	N3-C4-C5	-6.60	119.26	121.90
35	E	1276	G	O4'-C1'-N9	6.60	113.48	108.20
35	E	1659	U	O4'-C1'-N1	6.60	113.48	108.20
35	E	1688	C	O4'-C1'-N1	6.60	113.48	108.20
35	E	2147	U	C2-N1-C1'	6.60	125.62	117.70
35	E	843	U	O4'-C1'-N1	6.60	113.48	108.20
35	E	24	U	O4'-C1'-N1	6.59	113.47	108.20
35	E	1858	U	O4'-C1'-N1	6.59	113.47	108.20
35	E	80	G	C5-C6-O6	-6.59	124.64	128.60
35	E	734	G	C6-C5-N7	-6.59	126.44	130.40
35	E	2249	A	C4-C5-C6	6.59	120.30	117.00
35	E	218	C	N3-C4-N4	6.59	122.61	118.00
35	E	462	U	O4'-C1'-N1	6.59	113.47	108.20
35	E	2014	C	O4'-C1'-N1	6.59	113.47	108.20
35	E	2166	C	O4'-C1'-N1	6.59	113.47	108.20
35	E	1804	A	C5-C6-N6	-6.58	118.43	123.70
35	E	114	C	N3-C4-N4	6.58	122.61	118.00
35	E	650	C	N3-C4-N4	6.58	122.61	118.00
35	E	856	U	O4'-C1'-N1	6.58	113.47	108.20
35	E	1831	C	O4'-C1'-N1	6.58	113.47	108.20
35	E	685	G	C5-C6-O6	-6.58	124.65	128.60
35	E	1587	U	O4'-C1'-N1	6.58	113.46	108.20
35	E	2022	A	C5-C6-N6	-6.58	118.44	123.70
35	E	119	G	C5-C6-O6	-6.58	124.65	128.60
35	E	1300	C	N3-C4-C5	-6.58	119.27	121.90
35	E	87	C	N3-C4-N4	6.58	122.60	118.00
35	E	1647	G	C5-C6-O6	-6.58	124.65	128.60
35	E	1873	G	C6-N1-C2	-6.58	121.15	125.10
35	E	2079	G	C5-C6-O6	-6.58	124.65	128.60
35	E	743	C	O4'-C1'-N1	6.57	113.46	108.20
35	E	1848	U	O4'-C1'-N1	6.57	113.46	108.20
35	E	831	A	C4-C5-C6	6.57	120.28	117.00
35	E	1669	G	N1-C6-O6	6.57	123.84	119.90
35	E	832	G	C5-C6-O6	-6.57	124.66	128.60
35	E	1704	A	C5-C6-N6	-6.57	118.45	123.70
35	E	1709	G	C5-C6-O6	-6.57	124.66	128.60
35	E	1964	U	O4'-C1'-N1	6.57	113.45	108.20
35	E	560	C	N3-C4-N4	6.56	122.59	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	996	G	O4'-C1'-N9	6.56	113.45	108.20
35	E	1166	C	N3-C4-N4	6.56	122.59	118.00
35	E	1199	G	C5-C6-O6	-6.56	124.66	128.60
35	E	957	U	O4'-C1'-N1	6.56	113.45	108.20
35	E	1885	U	O4'-C1'-N1	6.56	113.45	108.20
35	E	1969	G	O4'-C1'-N9	6.56	113.45	108.20
35	E	1986	A	C5-C6-N6	-6.56	118.45	123.70
35	E	884	A	C4-C5-C6	6.55	120.28	117.00
35	E	2068	C	O4'-C1'-N1	6.55	113.44	108.20
35	E	778	A	C4-C5-C6	6.55	120.28	117.00
35	E	862	A	O4'-C1'-N9	6.55	113.44	108.20
35	E	985	G	C5-C6-O6	-6.55	124.67	128.60
35	E	1646	G	C5-C6-O6	-6.55	124.67	128.60
35	E	226	A	C5-C6-N6	-6.55	118.46	123.70
35	E	338	U	O4'-C1'-N1	6.55	113.44	108.20
35	E	18	C	N3-C4-N4	6.55	122.58	118.00
35	E	483	A	C5-C6-N6	-6.55	118.46	123.70
35	E	2142	C	N3-C4-N4	6.55	122.58	118.00
35	E	774	C	N3-C4-N4	6.54	122.58	118.00
35	E	815	G	C5-C6-O6	-6.54	124.67	128.60
35	E	820	U	O4'-C1'-N1	6.54	113.43	108.20
35	E	863	A	C4-C5-C6	6.54	120.27	117.00
35	E	1860	U	O4'-C1'-N1	6.54	113.43	108.20
35	E	47	A	C4-C5-C6	6.54	120.27	117.00
35	E	603	G	C5-C6-O6	-6.54	124.68	128.60
35	E	1801	C	O4'-C1'-N1	6.54	113.43	108.20
35	E	1802	C	O4'-C1'-N1	6.54	113.43	108.20
35	E	828	G	C5-C6-O6	-6.53	124.68	128.60
35	E	847	U	O4'-C1'-N1	6.53	113.42	108.20
35	E	596	A	O4'-C1'-N9	6.53	113.42	108.20
35	E	708	G	C5-C6-O6	-6.53	124.68	128.60
35	E	1249	G	C5-C6-O6	-6.53	124.68	128.60
35	E	1790	A	C4-C5-C6	6.53	120.27	117.00
35	E	2232	U	O4'-C1'-N1	6.53	113.42	108.20
35	E	198	U	O4'-C1'-N1	6.53	113.42	108.20
35	E	445	G	C5-C6-O6	-6.53	124.68	128.60
35	E	2248	G	C5-C6-O6	-6.53	124.68	128.60
35	E	2317	U	O4'-C1'-N1	6.53	113.42	108.20
35	E	851	U	O4'-C1'-N1	6.53	113.42	108.20
35	E	1570	U	O4'-C1'-N1	6.52	113.42	108.20
35	E	2096	G	C5-C6-O6	-6.52	124.69	128.60
35	E	222	U	O4'-C1'-N1	6.52	113.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	804	U	O4'-C1'-N1	6.52	113.42	108.20
35	E	1593	A	C5-C6-N1	-6.52	114.44	117.70
35	E	2153	C	O4'-C1'-N1	6.52	113.42	108.20
35	E	489	C	N3-C4-N4	6.52	122.56	118.00
35	E	226	A	C4-C5-C6	6.52	120.26	117.00
35	E	954	G	C5-C6-O6	-6.52	124.69	128.60
35	E	1239	G	C5-C6-O6	-6.52	124.69	128.60
35	E	1637	G	C5-C6-O6	-6.52	124.69	128.60
35	E	2036	A	C4-C5-C6	6.52	120.26	117.00
35	E	2215	C	N3-C4-N4	6.52	122.56	118.00
35	E	1192	A	C4-C5-C6	6.52	120.26	117.00
35	E	1918	C	N3-C4-N4	6.52	122.56	118.00
35	E	1925	A	C5-C6-N6	-6.51	118.49	123.70
35	E	677	G	C5-C6-O6	-6.51	124.69	128.60
35	E	219	U	O4'-C1'-N1	6.51	113.41	108.20
35	E	1941	C	O4'-C1'-N1	6.51	113.41	108.20
35	E	2095	G	C5-C6-O6	-6.51	124.69	128.60
35	E	761	G	C5-C6-O6	-6.51	124.70	128.60
35	E	1852	G	O4'-C1'-N9	6.51	113.41	108.20
35	E	1882	G	C5-C6-O6	-6.51	124.70	128.60
35	E	1218	A	C5-C6-N6	-6.50	118.50	123.70
35	E	2051	C	N3-C4-N4	6.50	122.55	118.00
35	E	665	U	O4'-C1'-N1	6.50	113.40	108.20
35	E	1177	C	P-O3'-C3'	6.50	127.50	119.70
35	E	1212	G	C5-C6-O6	-6.50	124.70	128.60
35	E	2081	G	C5-C6-O6	-6.50	124.70	128.60
35	E	881	G	C5-C6-O6	-6.50	124.70	128.60
35	E	340	U	O4'-C1'-N1	6.50	113.40	108.20
35	E	1822	A	C4-C5-C6	6.50	120.25	117.00
35	E	558	U	O4'-C1'-N1	6.50	113.40	108.20
35	E	1553	A	C4-C5-C6	6.50	120.25	117.00
35	E	21	U	O4'-C1'-N1	6.50	113.40	108.20
35	E	577	A	C4-C5-C6	6.49	120.25	117.00
35	E	1364	G	O4'-C1'-N9	6.49	113.39	108.20
35	E	696	G	C5-C6-O6	-6.49	124.71	128.60
35	E	2055	A	C4-C5-C6	6.49	120.25	117.00
35	E	2144	G	N3-C2-N2	6.49	124.44	119.90
35	E	209	C	N3-C4-N4	6.49	122.54	118.00
35	E	1711	G	C5-C6-O6	-6.49	124.71	128.60
35	E	2024	C	O4'-C1'-N1	6.49	113.39	108.20
35	E	17	C	N3-C4-N4	6.49	122.54	118.00
35	E	660	U	O4'-C1'-N1	6.49	113.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1525	C	O4'-C1'-N1	6.49	113.39	108.20
35	E	1615	A	C5-C6-N6	-6.49	118.51	123.70
35	E	1270	A	C4-C5-C6	6.48	120.24	117.00
35	E	1604	U	O4'-C1'-N1	6.48	113.39	108.20
35	E	243	U	O4'-C1'-N1	6.48	113.39	108.20
35	E	333	C	N3-C4-N4	6.48	122.54	118.00
35	E	477	G	O4'-C1'-N9	6.48	113.39	108.20
35	E	510	U	O4'-C1'-N1	6.48	113.38	108.20
35	E	929	U	O4'-C1'-N1	6.48	113.38	108.20
35	E	1323	A	C4-C5-C6	6.48	120.24	117.00
35	E	1664	A	C4-C5-C6	6.48	120.24	117.00
35	E	2043	G	O4'-C1'-N9	6.48	113.38	108.20
35	E	2132	U	O4'-C1'-N1	6.48	113.38	108.20
35	E	251	A	O4'-C1'-N9	6.48	113.38	108.20
35	E	1350	U	O4'-C1'-N1	6.48	113.38	108.20
35	E	1704	A	C4-C5-C6	6.48	120.24	117.00
35	E	82	A	O4'-C1'-N9	6.47	113.38	108.20
35	E	1625	A	C4-C5-C6	6.47	120.24	117.00
35	E	1850	C	N3-C4-N4	6.47	122.53	118.00
35	E	1934	G	C5-C6-O6	-6.47	124.72	128.60
35	E	748	G	P-O3'-C3'	6.47	127.47	119.70
35	E	1271	G	C5-C6-O6	-6.47	124.72	128.60
35	E	1865	A	C4-C5-C6	6.47	120.24	117.00
35	E	2099	G	O4'-C1'-N9	6.47	113.38	108.20
35	E	1945	U	O4'-C1'-N1	6.47	113.38	108.20
35	E	2268	A	C5-C6-N6	-6.47	118.52	123.70
35	E	1327	A	C5-C6-N1	-6.47	114.47	117.70
35	E	499	A	C4-C5-C6	6.47	120.23	117.00
35	E	2223	U	O4'-C1'-N1	6.47	113.37	108.20
35	E	722	C	N3-C4-N4	6.46	122.53	118.00
35	E	2076	A	C4-C5-C6	6.46	120.23	117.00
35	E	83	U	O4'-C1'-N1	6.46	113.37	108.20
35	E	278	A	C5-C6-N6	-6.46	118.53	123.70
35	E	540	U	O4'-C1'-N1	6.46	113.37	108.20
35	E	1809	C	N3-C4-N4	6.46	122.52	118.00
35	E	44	C	O4'-C1'-N1	6.46	113.36	108.20
35	E	483	A	C4-C5-C6	6.46	120.23	117.00
35	E	1642	G	C5-C6-O6	-6.46	124.73	128.60
35	E	611	G	O4'-C1'-N9	6.45	113.36	108.20
35	E	715	U	O4'-C1'-N1	6.45	113.36	108.20
35	E	1761	U	O4'-C1'-N1	6.45	113.36	108.20
35	E	2231	U	O4'-C1'-N1	6.45	113.36	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1259	A	C5-C6-N1	-6.45	114.47	117.70
35	E	294	G	C5-C6-O6	-6.45	124.73	128.60
35	E	1544	U	P-O3'-C3'	6.45	127.44	119.70
35	E	1866	A	C5-C6-N1	-6.45	114.47	117.70
35	E	1890	C	N3-C4-N4	6.45	122.52	118.00
35	E	279	A	C4-C5-C6	6.45	120.22	117.00
35	E	390	C	N3-C4-N4	6.45	122.51	118.00
35	E	1363	C	O4'-C1'-N1	6.45	113.36	108.20
35	E	1708	U	O4'-C1'-N1	6.45	113.36	108.20
35	E	2126	A	C4-C5-C6	6.45	120.22	117.00
35	E	695	G	C5-C6-O6	-6.45	124.73	128.60
35	E	1262	C	N3-C4-N4	6.45	122.51	118.00
35	E	183	C	O4'-C1'-N1	6.45	113.36	108.20
35	E	1541	U	O4'-C1'-N1	6.45	113.36	108.20
35	E	2125	C	N3-C4-N4	6.45	122.51	118.00
35	E	2288	A	C5-C6-N6	-6.45	118.54	123.70
5	u	84	PHE	CB-CG-CD1	6.44	125.31	120.80
35	E	1732	A	C4-C5-C6	6.44	120.22	117.00
35	E	264	C	N3-C4-C5	-6.44	119.32	121.90
35	E	2048	A	C4-C5-C6	6.44	120.22	117.00
35	E	940	U	O4'-C1'-N1	6.44	113.35	108.20
35	E	1343	A	C4-C5-C6	6.44	120.22	117.00
35	E	682	G	C5-C6-O6	-6.44	124.74	128.60
35	E	769	A	C4-C5-C6	6.44	120.22	117.00
35	E	1167	C	O4'-C1'-N1	6.44	113.35	108.20
35	E	1537	U	O4'-C1'-N1	6.44	113.35	108.20
35	E	206	C	N3-C4-N4	6.44	122.50	118.00
35	E	1078	U	P-O3'-C3'	6.44	127.42	119.70
35	E	1168	U	O4'-C1'-N1	6.44	113.35	108.20
35	E	1250	A	C4-C5-C6	6.44	120.22	117.00
35	E	754	G	C5-C6-O6	-6.43	124.74	128.60
35	E	1988	U	O4'-C1'-N1	6.43	113.34	108.20
35	E	2152	C	N3-C4-N4	6.43	122.50	118.00
35	E	519	G	C5-C6-O6	-6.43	124.74	128.60
35	E	739	G	C5-C6-O6	-6.43	124.74	128.60
35	E	923	A	C5-C6-N6	-6.43	118.56	123.70
35	E	1197	A	C4-C5-C6	6.43	120.22	117.00
35	E	453	U	O4'-C1'-N1	6.43	113.34	108.20
35	E	756	G	O4'-C1'-N9	6.43	113.34	108.20
35	E	257	A	C4-C5-C6	6.42	120.21	117.00
35	E	1376	G	C5-C6-O6	-6.42	124.75	128.60
35	E	271	C	N3-C4-N4	6.42	122.50	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	989	G	C5-C6-O6	-6.42	124.75	128.60
35	E	1921	G	O4'-C1'-N9	6.42	113.34	108.20
35	E	9	U	O4'-C1'-N1	6.42	113.34	108.20
35	E	96	C	N3-C4-N4	6.42	122.50	118.00
35	E	1186	U	O4'-C1'-N1	6.42	113.34	108.20
35	E	1965	U	O4'-C1'-N1	6.42	113.34	108.20
35	E	2251	A	C5-C6-N6	-6.42	118.56	123.70
35	E	1351	C	N3-C4-N4	6.42	122.49	118.00
35	E	1360	A	C4-C5-C6	6.42	120.21	117.00
35	E	2277	C	N3-C4-N4	6.42	122.49	118.00
35	E	1524	U	O4'-C1'-N1	6.42	113.33	108.20
35	E	2052	C	C1'-O4'-C4'	-6.42	104.77	109.90
35	E	328	U	O4'-C1'-N1	6.42	113.33	108.20
35	E	1952	U	O4'-C1'-N1	6.42	113.33	108.20
35	E	1748	C	N3-C4-N4	6.41	122.49	118.00
35	E	1821	C	O4'-C1'-N1	6.41	113.33	108.20
35	E	105	A	C4-C5-C6	6.41	120.20	117.00
35	E	521	A	C4-C5-C6	6.41	120.20	117.00
35	E	2218	U	O4'-C1'-N1	6.41	113.33	108.20
35	E	2281	A	C5-C6-N6	-6.41	118.57	123.70
35	E	1074	C	N3-C4-N4	6.41	122.49	118.00
35	E	1676	A	C4-C5-C6	6.41	120.20	117.00
35	E	2306	A	C4-C5-C6	6.41	120.20	117.00
35	E	1797	A	C4-C5-C6	6.41	120.20	117.00
35	E	2003	G	C5-C6-O6	-6.41	124.76	128.60
35	E	73	A	C5-C6-N6	-6.40	118.58	123.70
35	E	81	A	C4-C5-C6	6.40	120.20	117.00
35	E	284	C	O4'-C1'-N1	6.40	113.32	108.20
35	E	689	A	C4-C5-C6	6.40	120.20	117.00
35	E	699	C	N3-C4-N4	6.40	122.48	118.00
35	E	337	G	C5-C6-O6	-6.40	124.76	128.60
35	E	1974	C	C6-N1-C1'	-6.40	113.12	120.80
35	E	371	A	C4-C5-C6	6.40	120.20	117.00
35	E	1927	A	C4-C5-C6	6.40	120.20	117.00
35	E	1078	U	O4'-C1'-N1	6.39	113.32	108.20
35	E	738	G	N1-C2-N3	-6.39	120.06	123.90
35	E	1649	U	O4'-C1'-N1	6.39	113.31	108.20
35	E	2077	C	O4'-C1'-N1	6.39	113.31	108.20
35	E	2114	U	C6-N1-C1'	-6.39	112.25	121.20
35	E	568	G	O4'-C1'-N9	6.39	113.31	108.20
35	E	1601	A	C4-C5-C6	6.39	120.20	117.00
35	E	2035	A	C4-C5-C6	6.39	120.20	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1171	C	N3-C4-N4	6.39	122.47	118.00
35	E	1261	A	C5-C6-N6	-6.39	118.59	123.70
35	E	1374	A	C5-C6-N6	-6.39	118.59	123.70
35	E	2164	U	O4'-C1'-N1	6.39	113.31	108.20
35	E	307	C	O4'-C1'-N1	6.39	113.31	108.20
35	E	538	A	C5-C6-N6	-6.39	118.59	123.70
35	E	1962	U	O4'-C1'-N1	6.39	113.31	108.20
35	E	875	A	C4-C5-C6	6.39	120.19	117.00
35	E	1554	A	C5-C6-N6	-6.39	118.59	123.70
35	E	2150	G	O4'-C1'-N9	6.39	113.31	108.20
35	E	2286	G	C5-C6-O6	-6.39	124.77	128.60
35	E	711	A	O3'-P-O5'	-6.38	91.87	104.00
35	E	1790	A	C5-C6-N6	-6.38	118.59	123.70
35	E	776	G	P-O5'-C5'	6.38	131.11	120.90
35	E	713	G	O4'-C1'-N9	6.38	113.31	108.20
35	E	1785	C	N3-C4-N4	6.38	122.47	118.00
35	E	1374	A	C4-C5-C6	6.38	120.19	117.00
35	E	1732	A	C5-C6-N6	-6.38	118.60	123.70
35	E	672	U	O4'-C1'-N1	6.38	113.30	108.20
35	E	744	C	C6-N1-C2	-6.38	117.75	120.30
35	E	526	A	C5-C6-N6	-6.38	118.60	123.70
35	E	641	C	N3-C4-N4	6.38	122.46	118.00
35	E	1870	G	O4'-C1'-N9	6.38	113.30	108.20
35	E	476	G	C5-C6-O6	-6.37	124.78	128.60
35	E	589	U	O4'-C1'-N1	6.37	113.30	108.20
35	E	1533	U	O4'-C1'-N1	6.37	113.30	108.20
35	E	2279	U	O4'-C1'-N1	6.37	113.30	108.20
25	i	116	PHE	CB-CG-CD2	-6.37	116.34	120.80
35	E	1527	G	C5-C6-O6	-6.37	124.78	128.60
35	E	100	A	C4-C5-C6	6.37	120.18	117.00
35	E	468	G	C5-C6-O6	-6.37	124.78	128.60
35	E	484	A	C4-C5-C6	6.37	120.18	117.00
35	E	2001	A	C5-C6-N6	-6.37	118.61	123.70
1	p	105	PHE	CB-CG-CD2	6.36	125.25	120.80
35	E	2214	A	C4-C5-C6	6.36	120.18	117.00
35	E	131	C	N3-C4-N4	6.36	122.45	118.00
35	E	285	A	O4'-C1'-N9	6.36	113.29	108.20
35	E	423	C	N3-C4-N4	6.36	122.45	118.00
35	E	2083	A	C4-C5-C6	6.36	120.18	117.00
35	E	502	A	C4-C5-C6	6.36	120.18	117.00
35	E	1244	U	O4'-C1'-N1	6.36	113.29	108.20
35	E	1734	U	O4'-C1'-N1	6.36	113.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1775	U	C2-N1-C1'	6.36	125.33	117.70
35	E	1887	U	C3'-C2'-C1'	6.36	106.59	101.50
35	E	576	A	C4-C5-C6	6.36	120.18	117.00
35	E	2022	A	C4-C5-C6	6.36	120.18	117.00
35	E	2040	G	C5-C6-O6	-6.36	124.78	128.60
35	E	537	C	N3-C4-N4	6.36	122.45	118.00
35	E	1201	G	C5-C6-O6	-6.36	124.79	128.60
35	E	1282	C	N3-C4-N4	6.36	122.45	118.00
35	E	2004	A	C5-C6-N6	-6.36	118.61	123.70
35	E	525	A	C4-C5-C6	6.35	120.18	117.00
35	E	2042	G	C5-C6-O6	-6.35	124.79	128.60
35	E	1179	C	N3-C4-C5	-6.35	119.36	121.90
35	E	1689	A	C4-C5-C6	6.35	120.18	117.00
35	E	2246	C	N3-C4-N4	6.35	122.45	118.00
35	E	447	A	C4-C5-C6	6.35	120.17	117.00
35	E	105	A	C5-C6-N6	-6.35	118.62	123.70
35	E	225	C	N3-C4-N4	6.35	122.44	118.00
35	E	153	C	N3-C4-N4	6.34	122.44	118.00
35	E	515	C	N3-C4-N4	6.34	122.44	118.00
35	E	151	A	O4'-C1'-N9	6.34	113.27	108.20
35	E	1248	A	C4-C5-C6	6.34	120.17	117.00
35	E	527	A	C4-C5-C6	6.34	120.17	117.00
35	E	626	C	N3-C4-N4	6.34	122.44	118.00
35	E	1815	A	C4-C5-C6	6.34	120.17	117.00
35	E	721	C	N3-C4-N4	6.34	122.44	118.00
35	E	1787	U	O4'-C1'-N1	6.34	113.27	108.20
35	E	1940	G	O4'-C1'-N9	6.34	113.27	108.20
35	E	920	A	C4-C5-C6	6.34	120.17	117.00
35	E	191	U	O4'-C1'-N1	6.34	113.27	108.20
35	E	278	A	C4-C5-C6	6.34	120.17	117.00
35	E	774	C	N3-C4-C5	-6.34	119.37	121.90
35	E	1321	G	O4'-C1'-N9	6.34	113.27	108.20
35	E	1611	A	C4-C5-C6	6.33	120.17	117.00
35	E	19	A	O4'-C1'-N9	6.33	113.27	108.20
35	E	1336	A	C5-C6-N6	-6.33	118.63	123.70
35	E	1751	U	O4'-C1'-N1	6.33	113.27	108.20
35	E	2020	G	P-O3'-C3'	6.33	127.30	119.70
35	E	2294	A	C4-C5-C6	6.33	120.17	117.00
35	E	867	G	C5-C6-O6	-6.33	124.80	128.60
35	E	1986	A	C4-C5-C6	6.33	120.17	117.00
35	E	82	A	C4-C5-C6	6.33	120.17	117.00
35	E	1242	A	C4-C5-C6	6.33	120.17	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1792	G	C5-C6-O6	-6.33	124.80	128.60
35	E	732	C	O4'-C1'-N1	6.33	113.26	108.20
35	E	1207	U	O4'-C1'-N1	6.33	113.26	108.20
35	E	1791	C	N3-C4-N4	6.33	122.43	118.00
35	E	2077	C	N3-C4-N4	6.33	122.43	118.00
35	E	864	A	C5-C6-N6	-6.33	118.64	123.70
35	E	1359	C	O4'-C1'-N1	6.33	113.26	108.20
35	E	2301	C	N3-C4-N4	6.33	122.43	118.00
35	E	381	A	C4-C5-C6	6.33	120.16	117.00
35	E	437	G	C5-C6-O6	-6.33	124.81	128.60
35	E	1319	G	O4'-C1'-N9	6.33	113.26	108.20
35	E	2008	A	C4-C5-C6	6.33	120.16	117.00
35	E	927	U	O4'-C1'-N1	6.32	113.26	108.20
35	E	1293	C	N3-C4-N4	6.32	122.42	118.00
35	E	935	A	C4-C5-C6	6.32	120.16	117.00
35	E	1320	G	O4'-C1'-N9	6.32	113.26	108.20
35	E	1903	A	C5'-C4'-C3'	6.32	126.11	116.00
35	E	2024	C	N3-C4-N4	6.32	122.42	118.00
35	E	506	A	C4-C5-C6	6.32	120.16	117.00
35	E	1638	G	C5-C6-O6	-6.32	124.81	128.60
35	E	2110	A	C4-C5-C6	6.32	120.16	117.00
35	E	130	G	O4'-C1'-N9	6.32	113.25	108.20
35	E	480	C	N3-C4-N4	6.32	122.42	118.00
35	E	936	C	N3-C4-N4	6.32	122.42	118.00
35	E	1330	A	C4-C5-C6	6.32	120.16	117.00
35	E	221	C	N3-C4-N4	6.32	122.42	118.00
35	E	586	A	C4-C5-C6	6.32	120.16	117.00
35	E	1187	C	O3'-P-O5'	6.32	116.00	104.00
35	E	933	C	N3-C4-N4	6.31	122.42	118.00
35	E	1202	G	C5-C6-O6	-6.31	124.81	128.60
35	E	1273	G	C5-C6-O6	-6.31	124.81	128.60
35	E	2255	C	N3-C4-N4	6.31	122.42	118.00
35	E	1	G	C5-C6-O6	-6.31	124.81	128.60
35	E	1707	U	O4'-C1'-N1	6.31	113.25	108.20
35	E	2148	A	O4'-C1'-N9	6.31	113.25	108.20
35	E	2191	G	C5-C6-O6	-6.31	124.81	128.60
35	E	1686	G	C5-C6-O6	-6.31	124.81	128.60
35	E	1294	C	N3-C4-N4	6.31	122.42	118.00
35	E	1560	G	C5-C6-O6	-6.31	124.81	128.60
35	E	1561	A	C4-C5-C6	6.31	120.15	117.00
35	E	996	G	P-O3'-C3'	-6.31	112.13	119.70
35	E	1269	C	N3-C4-N4	6.30	122.41	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1828	G	C5-C6-O6	-6.30	124.82	128.60
35	E	2239	A	C4-C5-C6	6.30	120.15	117.00
35	E	159	G	C5-C6-O6	-6.30	124.82	128.60
35	E	900	A	C4-C5-C6	6.30	120.15	117.00
35	E	1534	A	C5-C6-N6	-6.30	118.66	123.70
35	E	2234	A	O4'-C1'-N9	6.30	113.24	108.20
35	E	144	A	C4-C5-C6	6.30	120.15	117.00
35	E	984	A	O4'-C1'-N9	6.30	113.24	108.20
35	E	2258	C	N3-C4-N4	6.30	122.41	118.00
35	E	2115	C	N3-C4-N4	6.29	122.41	118.00
35	E	312	C	N3-C4-N4	6.29	122.41	118.00
35	E	1225	G	O4'-C1'-N9	6.29	113.23	108.20
35	E	2058	C	N3-C4-N4	6.29	122.41	118.00
35	E	454	A	C5-C6-N1	-6.29	114.55	117.70
35	E	1706	A	C5-C6-N1	-6.29	114.56	117.70
35	E	1703	C	N3-C4-N4	6.29	122.40	118.00
35	E	1958	U	O4'-C1'-N1	6.29	113.23	108.20
35	E	509	A	C4-C5-C6	6.29	120.14	117.00
35	E	1189	A	C4-C5-C6	6.29	120.14	117.00
35	E	1568	A	C4-C5-C6	6.29	120.14	117.00
35	E	1937	A	C4-C5-C6	6.29	120.14	117.00
35	E	264	C	N3-C4-N4	6.29	122.40	118.00
35	E	647	A	C5-C6-N6	-6.29	118.67	123.70
35	E	68	A	C4-C5-C6	6.28	120.14	117.00
35	E	548	C	N3-C4-N4	6.28	122.40	118.00
35	E	674	A	C4-C5-C6	6.28	120.14	117.00
35	E	2129	U	O4'-C1'-N1	6.28	113.23	108.20
35	E	954	G	C5-C6-N1	-6.28	108.36	111.50
35	E	1878	A	C4-C5-C6	6.28	120.14	117.00
35	E	55	A	C4-C5-C6	6.28	120.14	117.00
35	E	873	C	C6-N1-C1'	-6.28	113.26	120.80
35	E	1190	G	C5-C6-O6	-6.28	124.83	128.60
35	E	2002	A	C5-C6-N6	-6.28	118.68	123.70
35	E	96	C	O4'-C1'-N1	6.28	113.22	108.20
35	E	261	A	O4'-C1'-N9	6.28	113.22	108.20
35	E	357	C	N3-C4-N4	6.28	122.39	118.00
35	E	2131	A	C4-C5-C6	6.28	120.14	117.00
35	E	2274	A	C4-C5-C6	6.28	120.14	117.00
35	E	161	A	C4-C5-C6	6.28	120.14	117.00
35	E	383	U	O4'-C1'-N1	6.28	113.22	108.20
35	E	1265	A	C4-C5-C6	6.28	120.14	117.00
35	E	2085	U	O4'-C1'-N1	6.28	113.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	358	C	N3-C4-N4	6.27	122.39	118.00
35	E	472	A	C5-C6-N6	-6.27	118.68	123.70
35	E	1960	A	C4-C5-C6	6.27	120.14	117.00
35	E	1552	A	C4-C5-C6	6.27	120.14	117.00
35	E	2124	G	C5-C6-O6	-6.27	124.84	128.60
35	E	1641	C	N3-C4-N4	6.27	122.39	118.00
35	E	1832	A	C4-C5-C6	6.27	120.14	117.00
35	E	43	A	C4-C5-C6	6.27	120.13	117.00
35	E	297	U	O4'-C1'-N1	6.27	113.21	108.20
35	E	784	A	C4-C5-C6	6.27	120.13	117.00
35	E	111	A	C5-C6-N6	-6.27	118.69	123.70
35	E	2245	A	C5-C6-N6	-6.27	118.69	123.70
35	E	232	C	N3-C4-N4	6.26	122.39	118.00
35	E	345	A	C4-C5-C6	6.26	120.13	117.00
35	E	596	A	C4-C5-C6	6.26	120.13	117.00
35	E	906	U	O4'-C1'-N1	6.26	113.21	108.20
35	E	1589	C	N3-C4-N4	6.26	122.39	118.00
35	E	2119	U	O4'-C1'-N1	6.26	113.21	108.20
35	E	2120	A	C4-C5-C6	6.26	120.13	117.00
35	E	62	A	C4-C5-C6	6.26	120.13	117.00
35	E	587	A	C4-C5-C6	6.26	120.13	117.00
35	E	49	C	N3-C4-N4	6.26	122.38	118.00
35	E	54	C	N3-C4-N4	6.26	122.38	118.00
35	E	239	C	N3-C4-N4	6.26	122.38	118.00
35	E	1223	C	N3-C4-N4	6.26	122.38	118.00
35	E	1596	G	C5-C6-O6	-6.26	124.84	128.60
5	u	84	PHE	CB-CG-CD2	-6.26	116.42	120.80
35	E	104	C	N3-C4-N4	6.26	122.38	118.00
35	E	373	G	C5-C6-O6	-6.26	124.85	128.60
35	E	735	A	C6-N1-C2	-6.26	114.85	118.60
35	E	1246	U	O4'-C1'-N1	6.26	113.21	108.20
35	E	1650	U	O4'-C1'-N1	6.26	113.21	108.20
35	E	1884	U	P-O3'-C3'	6.26	127.21	119.70
35	E	78	A	C4-C5-C6	6.25	120.13	117.00
35	E	251	A	C5-C6-N6	-6.25	118.70	123.70
35	E	1571	C	N3-C4-N4	6.25	122.38	118.00
35	E	1673	U	O4'-C1'-N1	6.25	113.20	108.20
35	E	1951	A	C5-C6-N6	-6.25	118.70	123.70
35	E	434	A	C5-C6-N6	-6.25	118.70	123.70
35	E	444	A	C4-C5-C6	6.25	120.13	117.00
35	E	833	A	C4-C5-C6	6.25	120.13	117.00
35	E	1611	A	C5-C6-N1	-6.25	114.58	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1939	A	C4-C5-C6	6.25	120.12	117.00
35	E	2137	C	N3-C4-N4	6.25	122.38	118.00
35	E	216	A	C4-C5-C6	6.25	120.12	117.00
35	E	478	C	N3-C4-N4	6.25	122.37	118.00
35	E	750	C	N3-C4-N4	6.25	122.37	118.00
35	E	1532	U	O4'-C1'-N1	6.25	113.20	108.20
35	E	1710	A	C4-C5-C6	6.25	120.12	117.00
35	E	1859	U	O4'-C1'-N1	6.25	113.20	108.20
35	E	2229	A	C4-C5-C6	6.25	120.12	117.00
35	E	1252	C	N3-C4-N4	6.24	122.37	118.00
35	E	1818	A	C5-C6-N1	-6.24	114.58	117.70
35	E	281	A	C4-C5-C6	6.24	120.12	117.00
35	E	2216	A	C5-C6-N1	-6.24	114.58	117.70
35	E	1310	C	N3-C4-N4	6.24	122.37	118.00
35	E	2186	C	N3-C4-N4	6.24	122.37	118.00
35	E	2238	A	C4-C5-C6	6.24	120.12	117.00
35	E	339	C	N3-C4-N4	6.24	122.37	118.00
35	E	386	A	C4-C5-C6	6.24	120.12	117.00
35	E	475	A	C5-C6-N6	-6.24	118.71	123.70
35	E	713	G	C5-C6-O6	-6.24	124.86	128.60
35	E	1360	A	C5-C6-N6	-6.23	118.71	123.70
35	E	2221	A	C5-C6-N6	-6.23	118.71	123.70
35	E	777	A	C4-C5-C6	6.23	120.12	117.00
35	E	1313	A	O4'-C1'-N9	6.23	113.19	108.20
35	E	1847	C	N3-C4-N4	6.23	122.36	118.00
35	E	235	C	N3-C4-N4	6.23	122.36	118.00
35	E	872	A	C4-C5-C6	6.23	120.11	117.00
35	E	1586	G	C5-C6-O6	-6.23	124.86	128.60
35	E	1196	A	C5-C6-N1	-6.23	114.59	117.70
35	E	1336	A	C4-C5-C6	6.22	120.11	117.00
35	E	2075	G	O4'-C1'-N9	6.22	113.18	108.20
35	E	501	A	C4-C5-C6	6.22	120.11	117.00
35	E	1585	C	N3-C4-N4	6.22	122.36	118.00
35	E	491	C	O4'-C1'-N1	6.22	113.18	108.20
35	E	166	C	N3-C4-N4	6.22	122.35	118.00
35	E	250	A	C4-C5-C6	6.22	120.11	117.00
35	E	1259	A	C4-C5-C6	6.22	120.11	117.00
35	E	2189	A	C5-C6-N1	-6.22	114.59	117.70
35	E	503	A	C4-C5-C6	6.22	120.11	117.00
35	E	808	G	O4'-C1'-N9	6.22	113.17	108.20
35	E	911	U	O4'-C1'-N1	6.22	113.17	108.20
35	E	1660	C	O4'-C1'-N1	6.22	113.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1861	A	C4-C5-C6	6.22	120.11	117.00
35	E	149	A	C4-C5-C6	6.21	120.11	117.00
35	E	840	C	N3-C4-N4	6.21	122.35	118.00
35	E	1549	G	O4'-C1'-N9	6.21	113.17	108.20
35	E	2	A	O4'-C1'-N9	6.21	113.17	108.20
35	E	1662	A	C4-C5-C6	6.21	120.11	117.00
35	E	658	A	C5-C6-N6	-6.21	118.73	123.70
35	E	894	A	C4-C5-C6	6.21	120.10	117.00
35	E	2199	A	C4-C5-C6	6.21	120.11	117.00
4	t	60	ALA	N-CA-CB	6.21	118.79	110.10
35	E	1193	A	C4-C5-C6	6.21	120.10	117.00
35	E	1305	A	C5-C6-N1	-6.21	114.60	117.70
35	E	64	A	C4-C5-C6	6.20	120.10	117.00
35	E	162	A	C5-C6-N1	-6.20	114.60	117.70
35	E	785	A	C4-C5-C6	6.20	120.10	117.00
35	E	1268	A	C5-C6-N6	-6.20	118.74	123.70
35	E	1865	A	C5-C6-N6	-6.20	118.74	123.70
35	E	504	A	C4-C5-C6	6.20	120.10	117.00
35	E	561	A	C4-C5-C6	6.20	120.10	117.00
35	E	457	A	C5-C6-N6	-6.20	118.74	123.70
35	E	705	G	O4'-C1'-N9	6.20	113.16	108.20
35	E	936	C	N3-C4-C5	-6.20	119.42	121.90
35	E	1286	A	C5-C6-N1	-6.20	114.60	117.70
35	E	1342	C	N3-C4-N4	6.20	122.34	118.00
35	E	1539	A	C4-C5-C6	6.20	120.10	117.00
35	E	588	A	C4-C5-C6	6.20	120.10	117.00
35	E	645	A	C4-C5-C6	6.20	120.10	117.00
35	E	658	A	C4-C5-C6	6.20	120.10	117.00
35	E	829	C	O4'-C1'-N1	6.20	113.16	108.20
35	E	959	A	C4-C5-C6	6.20	120.10	117.00
35	E	2182	G	O4'-C1'-N9	6.20	113.16	108.20
35	E	1825	A	C5-C6-N1	-6.20	114.60	117.70
35	E	381	A	C5-C6-N6	-6.20	118.74	123.70
35	E	694	A	C4-C5-C6	6.20	120.10	117.00
35	E	905	A	C5-C6-N1	-6.20	114.60	117.70
35	E	942	C	C6-N1-C1'	-6.20	113.36	120.80
35	E	2026	A	C4-C5-C6	6.20	120.10	117.00
35	E	759	C	N3-C4-N4	6.19	122.34	118.00
35	E	584	C	O4'-C1'-N1	6.19	113.15	108.20
35	E	932	G	O4'-C1'-N9	6.19	113.15	108.20
35	E	22	A	C4-C5-C6	6.19	120.10	117.00
35	E	125	A	C4-C5-C6	6.19	120.09	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	356	C	O4'-C1'-N1	6.19	113.15	108.20
35	E	562	A	C4-C5-C6	6.19	120.09	117.00
35	E	1309	A	C5-C6-N6	-6.19	118.75	123.70
35	E	1218	A	C4-C5-C6	6.19	120.09	117.00
35	E	295	A	C4-C5-C6	6.19	120.09	117.00
35	E	961	A	C4-C5-C6	6.19	120.09	117.00
35	E	2305	C	N3-C4-N4	6.19	122.33	118.00
35	E	872	A	C5-C6-N6	-6.19	118.75	123.70
35	E	1966	C	O4'-C1'-N1	6.19	113.15	108.20
35	E	972	A	C4-C5-C6	6.18	120.09	117.00
35	E	1241	A	C4-C5-C6	6.18	120.09	117.00
35	E	2178	C	N3-C4-N4	6.18	122.33	118.00
35	E	2315	A	C4-C5-C6	6.18	120.09	117.00
35	E	696	G	O4'-C1'-N9	6.18	113.14	108.20
35	E	741	G	C5-C6-O6	-6.18	124.89	128.60
35	E	1170	C	N3-C4-N4	6.18	122.33	118.00
35	E	210	A	C4-C5-C6	6.18	120.09	117.00
35	E	1609	A	C4-C5-C6	6.18	120.09	117.00
35	E	22	A	C5-C6-N6	-6.18	118.76	123.70
35	E	185	A	C4-C5-C6	6.18	120.09	117.00
35	E	2069	A	C4-C5-C6	6.18	120.09	117.00
35	E	14	C	N3-C4-N4	6.18	122.32	118.00
35	E	265	C	N3-C4-N4	6.18	122.32	118.00
35	E	425	A	C4-C5-C6	6.18	120.09	117.00
35	E	538	A	C4-C5-C6	6.18	120.09	117.00
35	E	863	A	C5-C6-N1	-6.18	114.61	117.70
35	E	1308	A	C4-C5-C6	6.18	120.09	117.00
35	E	1652	A	C5-C6-N6	-6.18	118.76	123.70
35	E	1973	A	C4-C5-C6	6.18	120.09	117.00
35	E	1258	A	C4-C5-C6	6.17	120.09	117.00
35	E	1681	A	C4-C5-C6	6.17	120.09	117.00
35	E	1795	C	N3-C4-N4	6.17	122.32	118.00
35	E	1312	A	C4-C5-C6	6.17	120.09	117.00
35	E	287	A	C4-C5-C6	6.17	120.08	117.00
35	E	1639	A	C4-C5-C6	6.17	120.09	117.00
35	E	2234	A	C5-C6-N6	-6.17	118.76	123.70
35	E	1702	A	C4-C5-C6	6.17	120.08	117.00
35	E	78	A	C5-C6-N6	-6.17	118.77	123.70
35	E	299	A	C4-C5-C6	6.17	120.08	117.00
35	E	450	A	C4-C5-C6	6.17	120.08	117.00
35	E	2128	C	N3-C4-C5	-6.17	119.43	121.90
35	E	1795	C	O4'-C1'-N1	6.17	113.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	595	A	C4-C5-C6	6.16	120.08	117.00
35	E	744	C	N3-C4-C5	-6.16	119.44	121.90
35	E	1235	A	C4-C5-C6	6.16	120.08	117.00
35	E	2289	G	O4'-C1'-N9	6.16	113.13	108.20
35	E	140	C	N3-C4-N4	6.16	122.31	118.00
35	E	251	A	C4-C5-C6	6.16	120.08	117.00
35	E	316	A	C4-C5-C6	6.16	120.08	117.00
4	t	122	TYR	CB-CG-CD2	-6.16	117.31	121.00
35	E	205	G	O4'-C1'-N9	6.16	113.13	108.20
35	E	503	A	O4'-C1'-N9	6.16	113.13	108.20
35	E	2290	C	N3-C4-N4	6.16	122.31	118.00
35	E	1799	A	C5-C6-N6	-6.16	118.78	123.70
35	E	429	C	N3-C4-N4	6.15	122.31	118.00
35	E	1779	U	O4'-C1'-N1	6.15	113.12	108.20
35	E	2157	C	N3-C4-N4	6.15	122.31	118.00
35	E	2266	G	O4'-C1'-N9	6.15	113.12	108.20
35	E	1197	A	O4'-C1'-N9	6.15	113.12	108.20
35	E	1314	A	C4-C5-C6	6.15	120.08	117.00
35	E	2206	G	O4'-C1'-N9	6.15	113.12	108.20
35	E	2282	C	N3-C4-N4	6.15	122.31	118.00
35	E	1088	A	C4-C5-C6	6.15	120.07	117.00
35	E	1302	A	C5-C6-N6	-6.15	118.78	123.70
35	E	2219	C	N3-C4-N4	6.15	122.30	118.00
35	E	926	C	N3-C4-N4	6.15	122.30	118.00
35	E	1722	C	N3-C4-N4	6.15	122.30	118.00
35	E	168	A	C4-C5-C6	6.14	120.07	117.00
35	E	1526	A	C4-C5-C6	6.14	120.07	117.00
35	E	1613	U	O4'-C1'-N1	6.14	113.12	108.20
35	E	1633	A	C4-C5-C6	6.14	120.07	117.00
35	E	138	C	N3-C4-N4	6.14	122.30	118.00
35	E	1602	C	N3-C4-N4	6.14	122.30	118.00
35	E	1674	U	O4'-C1'-N1	6.14	113.11	108.20
35	E	259	C	C6-N1-C2	-6.14	117.84	120.30
35	E	273	G	C5-C6-O6	-6.14	124.92	128.60
35	E	450	A	C5-C6-N6	-6.14	118.79	123.70
35	E	1326	G	N3-C2-N2	6.14	124.20	119.90
35	E	1328	A	O4'-C1'-N9	6.14	113.11	108.20
35	E	2209	A	C4-C5-C6	6.14	120.07	117.00
35	E	45	U	O4'-C1'-N1	6.14	113.11	108.20
35	E	102	A	C4-C5-C6	6.14	120.07	117.00
35	E	281	A	C5-C6-N6	-6.14	118.79	123.70
35	E	527	A	O4'-C1'-N9	6.14	113.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	664	G	O4'-C1'-N9	6.14	113.11	108.20
35	E	753	U	C4'-C3'-C2'	-6.14	96.46	102.60
35	E	853	C	N3-C4-N4	6.14	122.30	118.00
35	E	915	A	C4-C5-C6	6.14	120.07	117.00
35	E	1264	A	C4-C5-C6	6.14	120.07	117.00
35	E	1285	C	N3-C4-N4	6.14	122.30	118.00
35	E	2002	A	C4-C5-C6	6.14	120.07	117.00
35	E	2302	C	N3-C4-N4	6.14	122.30	118.00
35	E	2175	C	N3-C4-N4	6.14	122.30	118.00
35	E	16	G	O4'-C1'-N9	6.14	113.11	108.20
35	E	170	C	N3-C4-N4	6.14	122.30	118.00
35	E	1226	G	O4'-C1'-N9	6.14	113.11	108.20
35	E	2083	A	C5-C6-N6	-6.14	118.79	123.70
35	E	2088	A	C5-C6-N6	-6.14	118.79	123.70
35	E	230	G	O4'-C1'-N9	6.13	113.11	108.20
35	E	242	A	C4-C5-C6	6.13	120.07	117.00
35	E	406	A	C4-C5-C6	6.13	120.07	117.00
35	E	844	G	C5-C6-O6	-6.13	124.92	128.60
35	E	1572	U	O4'-C1'-N1	6.13	113.11	108.20
35	E	1724	A	C4-C5-C6	6.13	120.07	117.00
35	E	2047	A	O4'-C1'-N9	6.13	113.11	108.20
35	E	960	A	C4-C5-C6	6.13	120.07	117.00
35	E	1195	G	C5-C6-O6	-6.13	124.92	128.60
35	E	1378	A	C4-C5-C6	6.13	120.06	117.00
35	E	176	C	N3-C4-N4	6.13	122.29	118.00
35	E	215	A	C4-C5-C6	6.13	120.06	117.00
35	E	356	C	N3-C4-N4	6.13	122.29	118.00
35	E	374	G	C5-C6-O6	-6.13	124.92	128.60
35	E	676	G	C5-C6-O6	-6.12	124.92	128.60
35	E	1981	A	C4-C5-C6	6.12	120.06	117.00
35	E	2061	G	C8-N9-C1'	-6.12	119.04	127.00
35	E	2263	G	C5-C6-O6	-6.12	124.92	128.60
35	E	768	G	P-O3'-C3'	6.12	127.05	119.70
35	E	1607	A	C4-C5-C6	6.12	120.06	117.00
35	E	1759	G	O4'-C1'-N9	6.12	113.10	108.20
35	E	2221	A	C4-C5-C6	6.12	120.06	117.00
35	E	2264	A	C5-C6-N6	-6.12	118.80	123.70
35	E	1087	A	C4-C5-C6	6.12	120.06	117.00
35	E	363	A	C4-C5-C6	6.12	120.06	117.00
35	E	2047	A	C4-C5-C6	6.12	120.06	117.00
35	E	2205	G	O4'-C1'-N9	6.12	113.10	108.20
35	E	319	C	N3-C4-N4	6.12	122.28	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	456	C	N3-C4-N4	6.12	122.28	118.00
35	E	790	G	O4'-C1'-N9	6.12	113.09	108.20
35	E	1219	C	N3-C4-N4	6.12	122.28	118.00
35	E	1286	A	O4'-C1'-N9	6.12	113.09	108.20
35	E	1920	A	C4-C5-C6	6.12	120.06	117.00
35	E	2202	A	C4-C5-C6	6.12	120.06	117.00
35	E	2234	A	C4-C5-C6	6.12	120.06	117.00
35	E	1998	A	O4'-C1'-N9	6.12	113.09	108.20
35	E	1200	A	C4-C5-C6	6.11	120.06	117.00
35	E	1592	A	C4-C5-C6	6.11	120.06	117.00
35	E	1597	U	O4'-C1'-N1	6.11	113.09	108.20
35	E	2247	C	N3-C4-N4	6.11	122.28	118.00
35	E	1371	C	N3-C4-N4	6.11	122.28	118.00
35	E	2268	A	C4-C5-C6	6.11	120.06	117.00
35	E	432	A	C5-C6-N1	-6.11	114.64	117.70
35	E	434	A	C4-C5-C6	6.11	120.06	117.00
35	E	1177	C	N3-C4-N4	6.11	122.28	118.00
35	E	392	A	C5-C6-N1	-6.11	114.65	117.70
35	E	783	A	C4-C5-C6	6.11	120.05	117.00
35	E	1559	U	O4'-C1'-N1	6.11	113.08	108.20
35	E	531	A	C4-C5-C6	6.10	120.05	117.00
35	E	1974	C	N3-C4-N4	6.10	122.27	118.00
35	E	349	A	C5-C6-N6	-6.10	118.82	123.70
35	E	646	A	C5-C6-N6	-6.10	118.82	123.70
35	E	1079	U	O4'-C1'-N1	6.10	113.08	108.20
35	E	352	A	C4-C5-C6	6.10	120.05	117.00
35	E	430	G	O4'-C1'-N9	6.10	113.08	108.20
35	E	520	A	C5-C6-N6	-6.10	118.82	123.70
35	E	1076	C	N3-C4-N4	6.10	122.27	118.00
35	E	1716	C	N3-C4-N4	6.10	122.27	118.00
35	E	1920	A	O4'-C1'-N9	6.10	113.08	108.20
35	E	865	A	C4-C5-C6	6.10	120.05	117.00
35	E	1306	A	C4-C5-C6	6.10	120.05	117.00
35	E	1619	A	C5-C6-N1	-6.10	114.65	117.70
35	E	1702	A	C5-C6-N6	-6.10	118.82	123.70
35	E	196	U	O4'-C1'-N1	6.10	113.08	108.20
35	E	1222	A	C4-C5-C6	6.10	120.05	117.00
35	E	314	A	C4-C5-C6	6.09	120.05	117.00
35	E	1233	A	C4-C5-C6	6.09	120.05	117.00
35	E	1369	C	N3-C4-N4	6.09	122.27	118.00
35	E	1695	A	C4-C5-C6	6.09	120.05	117.00
35	E	2009	C	N3-C4-N4	6.09	122.27	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	442	U	O4'-C1'-N1	6.09	113.07	108.20
35	E	637	C	N3-C4-N4	6.09	122.27	118.00
35	E	1330	A	C5-C6-N1	-6.09	114.65	117.70
35	E	1743	A	C5-C6-N6	-6.09	118.83	123.70
35	E	745	C	N3-C4-C5	-6.09	119.46	121.90
35	E	1999	A	C4-C5-C6	6.09	120.05	117.00
35	E	2133	C	N3-C4-N4	6.09	122.27	118.00
35	E	2262	A	C4-C5-C6	6.09	120.05	117.00
35	E	326	U	O4'-C1'-N1	6.09	113.07	108.20
35	E	1215	A	C4-C5-C6	6.09	120.05	117.00
35	E	1240	A	C5-C6-N6	-6.09	118.83	123.70
35	E	1595	A	C5-C6-N6	-6.09	118.83	123.70
35	E	1656	G	O4'-C1'-N9	6.09	113.07	108.20
35	E	1745	G	N1-C6-O6	6.09	123.55	119.90
35	E	1764	A	C4-C5-C6	6.09	120.05	117.00
35	E	817	A	C4-C5-C6	6.09	120.04	117.00
35	E	1268	A	C4-C5-C6	6.09	120.04	117.00
35	E	1313	A	C4-C5-C6	6.09	120.04	117.00
35	E	1710	A	C5-C6-N1	-6.09	114.66	117.70
35	E	1957	C	N3-C4-N4	6.09	122.26	118.00
35	E	300	A	C4-C5-C6	6.09	120.04	117.00
35	E	701	C	C6-N1-C2	-6.09	117.86	120.30
35	E	852	A	C4-C5-C6	6.09	120.04	117.00
35	E	967	A	C4-C5-C6	6.09	120.04	117.00
35	E	1340	A	C4-C5-C6	6.09	120.04	117.00
35	E	1373	C	N3-C4-N4	6.09	122.26	118.00
35	E	1630	A	C4-C5-C6	6.09	120.04	117.00
35	E	2088	A	C4-C5-C6	6.09	120.04	117.00
35	E	2192	A	C4-C5-C6	6.09	120.04	117.00
35	E	1784	C	N3-C4-N4	6.08	122.26	118.00
35	E	414	A	C4-C5-C6	6.08	120.04	117.00
35	E	741	G	O4'-C1'-N9	6.08	113.07	108.20
35	E	958	U	O4'-C1'-N1	6.08	113.07	108.20
35	E	1810	C	N3-C4-N4	6.08	122.26	118.00
35	E	2074	G	N3-C2-N2	6.08	124.16	119.90
35	E	392	A	C4-C5-C6	6.08	120.04	117.00
35	E	455	C	N3-C4-N4	6.08	122.26	118.00
35	E	977	A	C5-C6-N6	-6.08	118.84	123.70
35	E	1175	A	C4-C5-C6	6.08	120.04	117.00
35	E	1306	A	O4'-C1'-N9	6.08	113.06	108.20
35	E	1996	A	C4-C5-C6	6.08	120.04	117.00
35	E	365	C	N3-C4-N4	6.08	122.25	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	505	A	C5-C6-N6	-6.08	118.84	123.70
35	E	1355	A	C5-C6-N1	-6.08	114.66	117.70
35	E	2011	A	C4-C5-C6	6.08	120.04	117.00
35	E	161	A	O4'-C1'-N9	6.08	113.06	108.20
35	E	1896	C	N3-C4-N4	6.08	122.25	118.00
35	E	440	C	N3-C4-N4	6.08	122.25	118.00
35	E	508	G	O4'-C1'-N9	6.08	113.06	108.20
35	E	1624	C	N3-C4-N4	6.08	122.25	118.00
35	E	556	U	O4'-C1'-N1	6.07	113.06	108.20
35	E	1362	A	C4-C5-C6	6.07	120.04	117.00
35	E	1661	A	C4-C5-C6	6.07	120.04	117.00
35	E	1758	C	N3-C4-N4	6.07	122.25	118.00
35	E	490	C	N3-C4-N4	6.07	122.25	118.00
35	E	864	A	C4-C5-C6	6.07	120.04	117.00
35	E	2103	A	C4-C5-C6	6.07	120.04	117.00
35	E	124	A	C4-C5-C6	6.07	120.03	117.00
35	E	402	C	N3-C4-N4	6.07	122.25	118.00
35	E	536	A	C4-C5-C6	6.07	120.03	117.00
35	E	1370	A	O4'-C1'-N9	6.07	113.06	108.20
35	E	432	A	C4-C5-C6	6.07	120.03	117.00
35	E	485	A	C4-C5-C6	6.07	120.03	117.00
35	E	497	C	N3-C4-N4	6.07	122.25	118.00
35	E	1981	A	C5-C6-N6	-6.07	118.84	123.70
35	E	255	A	C4-C5-C6	6.07	120.03	117.00
35	E	549	A	C5-C6-N6	-6.07	118.85	123.70
35	E	624	A	C4-C5-C6	6.07	120.03	117.00
35	E	1211	G	C5-C6-O6	-6.07	124.96	128.60
35	E	2115	C	N3-C4-C5	-6.07	119.47	121.90
35	E	304	A	C4-C5-C6	6.07	120.03	117.00
35	E	588	A	C5-C6-N6	-6.07	118.85	123.70
35	E	800	C	N3-C4-C5	-6.07	119.47	121.90
35	E	904	C	N3-C4-N4	6.07	122.25	118.00
35	E	1984	A	C4-C5-C6	6.07	120.03	117.00
35	E	599	A	C4-C5-C6	6.06	120.03	117.00
35	E	681	C	N3-C4-N4	6.06	122.25	118.00
35	E	604	A	C5-C6-N6	-6.06	118.85	123.70
35	E	655	A	C4-C5-C6	6.06	120.03	117.00
35	E	763	G	C5-C6-O6	-6.06	124.96	128.60
35	E	917	A	C4-C5-C6	6.06	120.03	117.00
35	E	1087	A	C5-C6-N1	-6.06	114.67	117.70
35	E	1180	A	C4-C5-C6	6.06	120.03	117.00
35	E	1325	C	N3-C4-N4	6.06	122.24	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1645	C	N3-C4-N4	6.06	122.24	118.00
35	E	2300	A	C4-C5-C6	6.06	120.03	117.00
35	E	764	A	C5-C6-N6	-6.06	118.85	123.70
35	E	1258	A	C5-C6-N6	-6.06	118.85	123.70
35	E	167	A	C4-C5-C6	6.06	120.03	117.00
35	E	180	A	O4'-C1'-N9	6.06	113.05	108.20
35	E	952	U	O4'-C1'-N1	6.06	113.05	108.20
35	E	766	C	N3-C4-N4	6.06	122.24	118.00
35	E	1628	A	C5-C6-N6	-6.06	118.86	123.70
35	E	742	A	C5-C6-N1	-6.06	114.67	117.70
35	E	1925	A	C4-C5-C6	6.06	120.03	117.00
35	E	1998	A	C4-C5-C6	6.06	120.03	117.00
35	E	2251	A	C4-C5-C6	6.06	120.03	117.00
35	E	2299	A	C4-C5-C6	6.06	120.03	117.00
35	E	916	A	C4-C5-C6	6.05	120.03	117.00
35	E	1677	C	N3-C4-N4	6.05	122.24	118.00
35	E	2008	A	O4'-C1'-N9	6.05	113.04	108.20
35	E	306	U	O4'-C1'-N1	6.05	113.04	108.20
35	E	757	G	P-O3'-C3'	6.05	126.96	119.70
35	E	1309	A	C4-C5-C6	6.05	120.03	117.00
35	E	1657	A	C4-C5-C6	6.05	120.03	117.00
35	E	1333	A	C4-C5-C6	6.05	120.03	117.00
35	E	371	A	C5-C6-N6	-6.05	118.86	123.70
35	E	2059	A	C5-C6-N1	-6.05	114.68	117.70
35	E	882	U	O4'-C1'-N1	6.05	113.04	108.20
35	E	2065	A	O4'-C1'-N9	6.05	113.04	108.20
35	E	121	A	C5-C6-N6	-6.05	118.86	123.70
35	E	782	A	C4-C5-C6	6.05	120.02	117.00
35	E	1938	C	N3-C4-N4	6.05	122.23	118.00
35	E	147	G	O4'-C1'-N9	6.04	113.03	108.20
35	E	877	A	C4-C5-C6	6.04	120.02	117.00
35	E	913	A	C4-C5-C6	6.04	120.02	117.00
35	E	1680	G	C5-C6-O6	-6.04	124.97	128.60
35	E	2039	A	C4-C5-C6	6.04	120.02	117.00
35	E	2139	G	O4'-C1'-N9	6.04	113.03	108.20
35	E	2159	A	C4-C5-C6	6.04	120.02	117.00
35	E	180	A	C4-C5-C6	6.04	120.02	117.00
35	E	348	A	C4-C5-C6	6.04	120.02	117.00
35	E	406	A	C5-C6-N6	-6.04	118.87	123.70
35	E	417	A	C4-C5-C6	6.04	120.02	117.00
35	E	743	C	C6-N1-C2	-6.04	117.88	120.30
35	E	777	A	C5-C6-N1	-6.04	114.68	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1216	G	O4'-C1'-N9	6.04	113.03	108.20
35	E	1287	A	C4-C5-C6	6.04	120.02	117.00
35	E	1679	A	C5-C6-N1	-6.04	114.68	117.70
35	E	2148	A	C4-C5-C6	6.04	120.02	117.00
35	E	571	A	C4-C5-C6	6.04	120.02	117.00
35	E	1536	C	N3-C4-C5	-6.04	119.48	121.90
35	E	36	U	O4'-C1'-N1	6.04	113.03	108.20
35	E	82	A	P-O3'-C3'	6.04	126.95	119.70
35	E	1633	A	C5-C6-N1	-6.04	114.68	117.70
35	E	1781	A	C4-C5-C6	6.04	120.02	117.00
35	E	2194	G	O4'-C1'-N9	6.04	113.03	108.20
35	E	608	C	O4'-C1'-N1	6.04	113.03	108.20
35	E	989	G	C5'-C4'-C3'	-6.04	106.34	116.00
35	E	122	A	C4-C5-C6	6.04	120.02	117.00
35	E	826	A	C4-C5-C6	6.04	120.02	117.00
35	E	1804	A	C4-C5-C6	6.04	120.02	117.00
35	E	701	C	N3-C4-C5	-6.03	119.49	121.90
35	E	1554	A	C5-C6-N1	-6.03	114.68	117.70
35	E	2284	A	C4-C5-C6	6.03	120.02	117.00
35	E	410	G	O4'-C1'-N9	6.03	113.02	108.20
35	E	889	A	C5-C6-N1	-6.03	114.68	117.70
35	E	2080	A	C5-C6-N6	-6.03	118.88	123.70
35	E	2143	C	N3-C4-N4	6.03	122.22	118.00
35	E	2226	U	O4'-C1'-N1	6.03	113.03	108.20
35	E	1723	G	O4'-C1'-N9	6.03	113.02	108.20
35	E	1876	G	O4'-C1'-N9	6.03	113.02	108.20
35	E	1979	G	O4'-C1'-N9	6.03	113.02	108.20
35	E	111	A	C4-C5-C6	6.03	120.01	117.00
35	E	569	A	C4-C5-C6	6.03	120.01	117.00
35	E	1238	U	O4'-C1'-N1	6.03	113.02	108.20
35	E	2070	C	N3-C4-C5	-6.03	119.49	121.90
35	E	2111	A	C4-C5-C6	6.03	120.01	117.00
35	E	2015	U	P-O3'-C3'	6.03	126.93	119.70
35	E	2037	A	C4-C5-C6	6.02	120.01	117.00
35	E	11	A	C5-C6-N1	-6.02	114.69	117.70
35	E	576	A	C5-C6-N6	-6.02	118.88	123.70
35	E	692	U	O4'-C1'-N1	6.02	113.02	108.20
35	E	839	C	N3-C4-C5	-6.02	119.49	121.90
35	E	992	A	C4-C5-C6	6.02	120.01	117.00
35	E	1200	A	C5-C6-N1	-6.02	114.69	117.70
35	E	190	A	C4-C5-C6	6.02	120.01	117.00
35	E	1815	A	C5-C6-N6	-6.02	118.88	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	646	A	C5-C6-N1	-6.02	114.69	117.70
35	E	901	A	C5-C6-N6	-6.02	118.89	123.70
35	E	1174	C	N3-C4-N4	6.02	122.21	118.00
35	E	1632	G	O4'-C1'-N9	6.02	113.02	108.20
35	E	1701	G	C5-C6-O6	-6.02	124.99	128.60
35	E	690	A	C4-C5-C6	6.02	120.01	117.00
35	E	845	A	C4-C5-C6	6.02	120.01	117.00
35	E	1242	A	O4'-C1'-N9	6.02	113.02	108.20
35	E	1275	A	O4'-C1'-N9	6.02	113.01	108.20
35	E	1380	U	O4'-C1'-N1	6.02	113.02	108.20
35	E	439	G	O4'-C1'-N9	6.02	113.01	108.20
35	E	454	A	C4-C5-C6	6.02	120.01	117.00
35	E	858	A	C4-C5-C6	6.02	120.01	117.00
35	E	1176	A	C4-C5-C6	6.02	120.01	117.00
35	E	1547	A	C4-C5-C6	6.01	120.01	117.00
35	E	1591	C	O4'-C1'-N1	6.01	113.01	108.20
35	E	118	C	N3-C4-N4	6.01	122.21	118.00
35	E	121	A	C4-C5-C6	6.01	120.01	117.00
35	E	653	A	C4-C5-C6	6.01	120.01	117.00
35	E	728	A	C4-C5-C6	6.01	120.01	117.00
35	E	743	C	N3-C4-C5	-6.01	119.50	121.90
35	E	889	A	C5-C6-N6	-6.01	118.89	123.70
35	E	1187	C	N3-C4-N4	6.01	122.21	118.00
35	E	2006	A	C4-C5-C6	6.01	120.01	117.00
30	m	143	GLY	C-N-CA	6.01	136.72	121.70
35	E	28	A	C4-C5-C6	6.01	120.00	117.00
35	E	195	C	N3-C4-N4	6.01	122.21	118.00
35	E	269	A	C4-C5-C6	6.01	120.00	117.00
35	E	400	G	N3-C2-N2	6.01	124.11	119.90
35	E	781	A	C4-C5-C6	6.01	120.00	117.00
35	E	1769	U	O4'-C1'-N1	6.01	113.01	108.20
35	E	241	A	C4-C5-C6	6.01	120.00	117.00
35	E	608	C	N3-C4-N4	6.01	122.21	118.00
35	E	993	A	C4-C5-C6	6.01	120.00	117.00
35	E	1240	A	C4-C5-C6	6.01	120.00	117.00
35	E	1764	A	C5-C6-N6	-6.01	118.89	123.70
35	E	2065	A	C4-C5-C6	6.01	120.00	117.00
35	E	2080	A	C4-C5-C6	6.01	120.00	117.00
35	E	751	C	P-O3'-C3'	6.01	126.91	119.70
35	E	1269	C	N3-C4-C5	-6.01	119.50	121.90
35	E	1802	C	N3-C4-N4	6.01	122.20	118.00
35	E	414	A	C5-C6-N6	-6.00	118.90	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1891	C	N3-C4-N4	6.00	122.20	118.00
35	E	72	C	N3-C4-N4	6.00	122.20	118.00
35	E	402	C	N3-C4-C5	-6.00	119.50	121.90
35	E	774	C	O3'-P-O5'	6.00	115.41	104.00
35	E	1771	U	O4'-C1'-N1	6.00	113.00	108.20
35	E	2118	G	O4'-C1'-N9	6.00	113.00	108.20
35	E	2136	A	C4-C5-C6	6.00	120.00	117.00
35	E	785	A	C5-C6-N6	-6.00	118.90	123.70
35	E	876	A	C4-C5-C6	6.00	120.00	117.00
1	p	105	PHE	CB-CG-CD1	-6.00	116.60	120.80
35	E	734	G	C8-N9-C4	6.00	108.80	106.40
35	E	789	C	N3-C4-N4	6.00	122.20	118.00
35	E	794	G	O4'-C1'-N9	6.00	113.00	108.20
35	E	2053	G	O4'-C1'-N9	6.00	113.00	108.20
35	E	2063	A	O4'-C1'-N9	6.00	113.00	108.20
35	E	349	A	C4-C5-C6	6.00	120.00	117.00
35	E	2111	A	O4'-C1'-N9	6.00	113.00	108.20
35	E	360	A	C4-C5-C6	5.99	120.00	117.00
35	E	481	G	O4'-C1'-N9	5.99	113.00	108.20
35	E	1201	G	O4'-C1'-N9	5.99	112.99	108.20
35	E	2200	A	C5-C6-N6	-5.99	118.91	123.70
35	E	575	A	C4-C5-C6	5.99	120.00	117.00
35	E	1301	A	C4-C5-C6	5.99	120.00	117.00
35	E	1720	C	N3-C4-C5	-5.99	119.50	121.90
35	E	1794	A	C4-C5-C6	5.99	120.00	117.00
35	E	2092	A	C4-C5-C6	5.99	120.00	117.00
35	E	2135	A	C4-C5-C6	5.99	120.00	117.00
35	E	498	A	C4-C5-C6	5.99	120.00	117.00
35	E	1301	A	C5-C6-N6	-5.99	118.91	123.70
35	E	861	A	C5-C6-N1	-5.99	114.71	117.70
35	E	990	A	C4-C5-C6	5.99	119.99	117.00
35	E	1205	A	C4-C5-C6	5.99	119.99	117.00
35	E	1314	A	C5-C6-N6	-5.99	118.91	123.70
35	E	516	A	C4-C5-C6	5.99	119.99	117.00
35	E	581	A	C5-C6-N6	-5.99	118.91	123.70
35	E	607	A	C4-C5-C6	5.99	119.99	117.00
35	E	1854	G	O4'-C1'-N9	5.99	112.99	108.20
35	E	1349	G	O4'-C1'-N9	5.98	112.99	108.20
35	E	2015	U	O4'-C1'-N1	5.98	112.99	108.20
35	E	350	C	N3-C4-N4	5.98	122.19	118.00
35	E	549	A	C4-C5-C6	5.98	119.99	117.00
35	E	1690	G	C5-C6-O6	-5.98	125.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1732	A	O4'-C1'-N9	5.98	112.99	108.20
35	E	577	A	O4'-C1'-N9	5.98	112.98	108.20
35	E	582	U	O4'-C1'-N1	5.98	112.98	108.20
35	E	1354	C	N3-C4-N4	5.98	122.19	118.00
35	E	1631	A	C4-C5-C6	5.98	119.99	117.00
35	E	1919	A	C4-C5-C6	5.98	119.99	117.00
14	V	57	ALA	N-CA-CB	5.98	118.47	110.10
35	E	231	A	C5-C6-N1	-5.98	114.71	117.70
35	E	1345	U	O4'-C1'-N1	5.98	112.98	108.20
35	E	659	A	C4-C5-C6	5.98	119.99	117.00
35	E	1657	A	C5-C6-N6	-5.98	118.92	123.70
35	E	2265	G	O4'-C1'-N9	5.98	112.98	108.20
35	E	2034	A	C4-C5-C6	5.98	119.99	117.00
35	E	655	A	C5-C6-N6	-5.97	118.92	123.70
35	E	1228	G	O4'-C1'-N9	5.97	112.98	108.20
35	E	1353	A	C4-C5-C6	5.97	119.99	117.00
35	E	1592	A	C5-C6-N1	-5.97	114.71	117.70
35	E	1679	A	C4-C5-C6	5.97	119.99	117.00
35	E	1730	U	O4'-C1'-N1	5.97	112.98	108.20
35	E	838	G	C5-C6-O6	-5.97	125.02	128.60
35	E	954	G	C6-C5-N7	-5.97	126.82	130.40
35	E	1377	A	C4-C5-C6	5.97	119.99	117.00
35	E	1829	C	N3-C4-N4	5.97	122.18	118.00
35	E	2005	A	C4-C5-C6	5.97	119.99	117.00
35	E	2187	C	N3-C4-N4	5.97	122.18	118.00
35	E	1311	C	N3-C4-N4	5.97	122.18	118.00
35	E	2260	A	C4-C5-C6	5.97	119.99	117.00
35	E	311	G	O4'-C1'-N9	5.97	112.97	108.20
35	E	598	A	C4-C5-C6	5.97	119.98	117.00
35	E	1302	A	C4-C5-C6	5.97	119.98	117.00
35	E	2312	A	C4-C5-C6	5.97	119.98	117.00
35	E	525	A	C5-C6-N1	-5.97	114.72	117.70
35	E	1185	A	C4-C5-C6	5.97	119.98	117.00
35	E	2244	C	N3-C4-N4	5.97	122.18	118.00
35	E	62	A	C5-C6-N6	-5.97	118.93	123.70
35	E	184	A	C4-C5-C6	5.97	119.98	117.00
35	E	587	A	O4'-C1'-N9	5.96	112.97	108.20
35	E	721	C	O4'-C1'-N1	5.96	112.97	108.20
35	E	780	C	N3-C4-C5	-5.96	119.51	121.90
35	E	1209	C	N3-C4-N4	5.96	122.17	118.00
35	E	2083	A	O4'-C1'-N9	5.96	112.97	108.20
35	E	195	C	O4'-C1'-N1	5.96	112.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1304	C	N3-C4-N4	5.96	122.17	118.00
35	E	2166	C	N3-C4-N4	5.96	122.17	118.00
35	E	809	A	C4-C5-C6	5.96	119.98	117.00
35	E	165	C	N3-C4-N4	5.96	122.17	118.00
35	E	562	A	O4'-C1'-N9	5.96	112.97	108.20
35	E	638	C	N3-C4-N4	5.96	122.17	118.00
35	E	812	A	C4-C5-C6	5.96	119.98	117.00
35	E	866	A	C5-C6-N1	-5.96	114.72	117.70
35	E	2202	A	C5-C6-N6	-5.96	118.93	123.70
35	E	913	A	C5-C6-N1	-5.96	114.72	117.70
35	E	1705	G	O4'-C1'-N9	5.96	112.97	108.20
35	E	1954	C	N3-C4-N4	5.96	122.17	118.00
35	E	2288	A	C4-C5-C6	5.96	119.98	117.00
21	d	81	SER	N-CA-CB	5.96	119.43	110.50
35	E	448	A	C4-C5-C6	5.96	119.98	117.00
35	E	1981	A	C5-C6-N1	-5.96	114.72	117.70
20	f	172	TYR	CB-CG-CD2	-5.95	117.43	121.00
35	E	4	C	N3-C4-N4	5.95	122.17	118.00
35	E	143	C	N3-C4-N4	5.95	122.17	118.00
35	E	520	A	C4-C5-C6	5.95	119.98	117.00
35	E	521	A	O4'-C1'-N9	5.95	112.96	108.20
35	E	553	U	O4'-C1'-N1	5.95	112.96	108.20
35	E	684	A	C4-C5-C6	5.95	119.98	117.00
35	E	1229	C	N3-C4-N4	5.95	122.17	118.00
35	E	1573	C	N3-C4-N4	5.95	122.17	118.00
35	E	2027	C	N3-C4-C5	-5.95	119.52	121.90
35	E	2127	G	O4'-C1'-N9	5.95	112.96	108.20
35	E	2171	C	O4'-C1'-N1	5.95	112.96	108.20
35	E	789	C	N3-C4-C5	-5.95	119.52	121.90
35	E	1973	A	C5-C6-N6	-5.95	118.94	123.70
35	E	2004	A	C4-C5-C6	5.95	119.98	117.00
35	E	2047	A	C5-C6-N1	-5.95	114.72	117.70
35	E	581	A	C4-C5-C6	5.95	119.98	117.00
35	E	585	A	C4-C5-C6	5.95	119.97	117.00
35	E	2046	A	C5-C6-N6	-5.95	118.94	123.70
35	E	332	C	N3-C4-N4	5.95	122.16	118.00
35	E	989	G	O4'-C1'-N9	5.95	112.96	108.20
35	E	1235	A	C5-C6-N1	-5.95	114.73	117.70
35	E	1275	A	C5-C6-N6	-5.95	118.94	123.70
35	E	1939	A	O4'-C1'-N9	5.95	112.96	108.20
35	E	1984	A	O4'-C1'-N9	5.95	112.96	108.20
35	E	2010	G	O4'-C1'-N9	5.95	112.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	31	C	N3-C4-N4	5.95	122.16	118.00
35	E	127	C	O4'-C1'-N1	5.95	112.96	108.20
35	E	393	U	O4'-C1'-N1	5.95	112.96	108.20
35	E	645	A	C5-C6-N6	-5.95	118.94	123.70
35	E	1566	A	C4-C5-C6	5.95	119.97	117.00
35	E	2273	A	C4-C5-C6	5.95	119.97	117.00
35	E	1385	A	C5-C6-N6	-5.94	118.94	123.70
35	E	1936	A	C5-C6-N6	-5.94	118.94	123.70
35	E	156	G	O4'-C1'-N9	5.94	112.95	108.20
35	E	464	C	O4'-C1'-N1	5.94	112.95	108.20
35	E	1254	C	N3-C4-N4	5.94	122.16	118.00
35	E	2079	G	O4'-C1'-N9	5.94	112.95	108.20
35	E	898	A	C4-C5-C6	5.94	119.97	117.00
35	E	245	A	C4-C5-C6	5.94	119.97	117.00
35	E	2004	A	O4'-C1'-N9	5.94	112.95	108.20
35	E	1361	A	C4-C5-C6	5.94	119.97	117.00
35	E	249	A	C4-C5-C6	5.93	119.97	117.00
35	E	2262	A	C5-C6-N1	-5.93	114.73	117.70
35	E	1087	A	O4'-C1'-N9	5.93	112.94	108.20
35	E	1593	A	C5-C6-N6	-5.93	118.95	123.70
35	E	2298	G	O4'-C1'-N9	5.93	112.95	108.20
35	E	837	C	N3-C4-C5	-5.93	119.53	121.90
35	E	1332	G	O4'-C1'-N9	5.93	112.94	108.20
35	E	709	C	N3-C4-N4	5.93	122.15	118.00
35	E	912	A	C4-C5-C6	5.93	119.96	117.00
35	E	1179	C	N3-C4-N4	5.93	122.15	118.00
35	E	793	A	C5-C6-N1	-5.93	114.74	117.70
35	E	1561	A	C5-C6-N1	-5.93	114.74	117.70
35	E	703	A	C5-C6-N1	-5.93	114.74	117.70
35	E	744	C	N3-C4-N4	5.93	122.15	118.00
35	E	1373	C	N3-C4-C5	-5.93	119.53	121.90
35	E	1574	A	C4-C5-C6	5.93	119.96	117.00
35	E	2240	A	C5-C6-N6	-5.93	118.96	123.70
35	E	604	A	C4-C5-C6	5.92	119.96	117.00
35	E	1256	C	N3-C4-N4	5.92	122.15	118.00
35	E	507	A	C5-C6-N6	-5.92	118.96	123.70
35	E	523	A	C5-C6-N1	-5.92	114.74	117.70
35	E	799	A	C5-C6-N6	-5.92	118.96	123.70
35	E	1301	A	C5-C6-N1	-5.92	114.74	117.70
35	E	1874	C	N3-C4-C5	-5.92	119.53	121.90
35	E	287	A	C5-C6-N6	-5.92	118.96	123.70
35	E	598	A	O4'-C1'-N9	5.92	112.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1888	A	C4-C5-C6	5.92	119.96	117.00
35	E	1992	A	C4-C5-C6	5.92	119.96	117.00
35	E	231	A	C4-C5-C6	5.92	119.96	117.00
35	E	275	A	C4-C5-C6	5.92	119.96	117.00
35	E	531	A	C5-C6-N6	-5.92	118.97	123.70
35	E	925	C	N3-C4-N4	5.92	122.14	118.00
35	E	1316	U	O4'-C1'-N1	5.92	112.93	108.20
35	E	1629	C	N3-C4-N4	5.92	122.14	118.00
35	E	1917	G	O4'-C1'-N9	5.92	112.93	108.20
35	E	2260	A	O4'-C1'-N9	5.92	112.94	108.20
35	E	751	C	N3-C4-C5	-5.92	119.53	121.90
35	E	891	U	O4'-C1'-N1	5.92	112.93	108.20
35	E	1382	G	O4'-C1'-N9	5.92	112.93	108.20
35	E	1609	A	C5-C6-N6	-5.92	118.97	123.70
35	E	1818	A	C4-C5-C6	5.92	119.96	117.00
35	E	2200	A	C4-C5-C6	5.92	119.96	117.00
35	E	1297	C	N3-C4-C5	-5.92	119.53	121.90
35	E	2	A	C4-C5-C6	5.91	119.96	117.00
35	E	245	A	C5-C6-N1	-5.91	114.74	117.70
35	E	526	A	C4-C5-C6	5.91	119.96	117.00
35	E	639	A	C4-C5-C6	5.91	119.96	117.00
35	E	734	G	N3-C4-C5	5.91	131.56	128.60
35	E	1610	A	C4-C5-C6	5.91	119.96	117.00
35	E	1740	U	O4'-C1'-N1	5.91	112.93	108.20
35	E	1191	G	C5-C6-O6	-5.91	125.05	128.60
35	E	509	A	C5-C6-N6	-5.91	118.97	123.70
35	E	1368	A	C4-C5-C6	5.91	119.95	117.00
35	E	2087	C	N3-C4-N4	5.91	122.14	118.00
35	E	107	A	C4-C5-C6	5.91	119.95	117.00
35	E	313	G	C4-N9-C1'	5.91	134.18	126.50
35	E	610	A	C5-C6-N1	-5.91	114.75	117.70
35	E	512	A	C4-C5-C6	5.91	119.95	117.00
35	E	967	A	C5-C6-N1	-5.91	114.75	117.70
35	E	1733	A	C4-C5-C6	5.91	119.95	117.00
35	E	703	A	C4-C5-C6	5.91	119.95	117.00
35	E	999	U	O4'-C1'-N1	5.91	112.92	108.20
35	E	1085	G	O4'-C1'-N9	5.91	112.92	108.20
35	E	1355	A	C4-C5-C6	5.91	119.95	117.00
35	E	1385	A	C4-C5-C6	5.91	119.95	117.00
35	E	2039	A	O4'-C1'-N9	5.91	112.92	108.20
35	E	2245	A	C4-C5-C6	5.91	119.95	117.00
35	E	2259	A	C4-C5-C6	5.90	119.95	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1180	A	O4'-C1'-N9	5.90	112.92	108.20
35	E	2271	A	C4-C5-C6	5.90	119.95	117.00
35	E	285	A	C4-C5-C6	5.90	119.95	117.00
35	E	330	A	C4-C5-C6	5.90	119.95	117.00
35	E	901	A	C4-C5-C6	5.90	119.95	117.00
35	E	2046	A	C4-C5-C6	5.90	119.95	117.00
35	E	26	A	C4-C5-C6	5.90	119.95	117.00
35	E	64	A	C5-C6-N1	-5.90	114.75	117.70
35	E	192	G	O4'-C1'-N9	5.90	112.92	108.20
35	E	1266	C	N3-C4-N4	5.90	122.13	118.00
35	E	1308	A	C5-C6-N6	-5.90	118.98	123.70
35	E	141	A	O4'-C1'-N9	5.89	112.92	108.20
35	E	1271	G	O4'-C1'-N9	5.89	112.92	108.20
35	E	2089	A	C4-C5-C6	5.89	119.95	117.00
35	E	2169	A	C4-C5-C6	5.89	119.95	117.00
35	E	25	C	N3-C4-N4	5.89	122.12	118.00
35	E	1794	A	C5-C6-N6	-5.89	118.99	123.70
35	E	1961	A	O4'-C1'-N9	5.89	112.91	108.20
35	E	492	A	O4'-C1'-N9	5.89	112.91	108.20
35	E	2272	A	C4-C5-C6	5.89	119.94	117.00
35	E	1333	A	O4'-C1'-N9	5.89	112.91	108.20
35	E	2267	A	C4-C5-C6	5.89	119.94	117.00
35	E	962	A	C4-C5-C6	5.89	119.94	117.00
35	E	2027	C	O4'-C1'-N1	5.89	112.91	108.20
35	E	241	A	C5-C6-N6	-5.89	118.99	123.70
35	E	248	G	N3-C2-N2	5.89	124.02	119.90
35	E	451	G	O4'-C1'-N9	5.89	112.91	108.20
35	E	1951	A	O4'-C1'-N9	5.89	112.91	108.20
35	E	2269	G	O4'-C1'-N9	5.89	112.91	108.20
35	E	583	C	N3-C4-N4	5.88	122.12	118.00
35	E	764	A	C4-C5-C6	5.88	119.94	117.00
35	E	788	A	C4-C5-C6	5.88	119.94	117.00
35	E	1370	A	C4-C5-C6	5.88	119.94	117.00
35	E	1814	U	O4'-C1'-N1	5.88	112.91	108.20
35	E	1888	A	C5-C6-N1	-5.88	114.76	117.70
35	E	1973	A	C5-C6-N1	-5.88	114.76	117.70
35	E	2063	A	C4-C5-C6	5.88	119.94	117.00
35	E	2281	A	C4-C5-C6	5.88	119.94	117.00
35	E	704	A	C4-C5-C6	5.88	119.94	117.00
35	E	1667	G	C5-C6-O6	-5.88	125.07	128.60
35	E	653	A	C5-C6-N6	-5.88	118.99	123.70
35	E	1290	A	C5-C6-N1	-5.88	114.76	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2089	A	C5-C6-N1	-5.88	114.76	117.70
35	E	2098	C	N3-C4-C5	-5.88	119.55	121.90
35	E	472	A	C4-C5-C6	5.88	119.94	117.00
35	E	523	A	C4-C5-C6	5.88	119.94	117.00
35	E	765	A	C4-C5-C6	5.88	119.94	117.00
35	E	775	A	C5-C6-N6	-5.88	119.00	123.70
35	E	1217	A	C4-C5-C6	5.88	119.94	117.00
35	E	463	A	C4-C5-C6	5.88	119.94	117.00
35	E	491	C	N3-C4-N4	5.88	122.11	118.00
35	E	866	A	C4-C5-C6	5.88	119.94	117.00
35	E	912	A	C5-C6-N1	-5.88	114.76	117.70
35	E	1241	A	C5-C6-N6	-5.88	119.00	123.70
35	E	1245	C	N3-C4-N4	5.88	122.11	118.00
35	E	1290	A	C5-C6-N6	-5.88	119.00	123.70
35	E	1352	C	N3-C4-N4	5.88	122.11	118.00
35	E	1375	U	O4'-C1'-N1	5.88	112.90	108.20
35	E	1971	C	N3-C4-N4	5.88	122.11	118.00
35	E	2135	A	C5-C6-N1	-5.88	114.76	117.70
35	E	786	A	C4-C5-C6	5.88	119.94	117.00
35	E	1646	G	O4'-C1'-N9	5.88	112.90	108.20
35	E	464	C	N3-C4-N4	5.87	122.11	118.00
35	E	467	A	C4-C5-C6	5.87	119.94	117.00
35	E	645	A	C5-C6-N1	-5.87	114.76	117.70
35	E	1927	A	O4'-C1'-N9	5.87	112.90	108.20
35	E	81	A	O4'-C1'-N9	5.87	112.90	108.20
35	E	303	C	N3-C4-N4	5.87	122.11	118.00
35	E	1285	C	N3-C4-C5	-5.87	119.55	121.90
35	E	1975	A	C4-C5-C6	5.87	119.94	117.00
35	E	11	A	C4-C5-C6	5.87	119.94	117.00
35	E	902	A	C4-C5-C6	5.87	119.93	117.00
35	E	995	C	N3-C4-N4	5.87	122.11	118.00
35	E	1615	A	O4'-C1'-N9	5.87	112.89	108.20
35	E	1956	C	N3-C4-N4	5.87	122.11	118.00
35	E	2128	C	N3-C4-N4	5.87	122.11	118.00
35	E	646	A	C4-C5-C6	5.87	119.93	117.00
35	E	1338	A	C4-C5-C6	5.87	119.93	117.00
35	E	1584	A	C4-C5-C6	5.87	119.93	117.00
35	E	1663	C	N3-C4-N4	5.87	122.11	118.00
35	E	2100	C	N3-C4-C5	-5.86	119.55	121.90
35	E	647	A	C4-C5-C6	5.86	119.93	117.00
35	E	578	C	N3-C4-N4	5.86	122.10	118.00
35	E	889	A	C4-C5-C6	5.86	119.93	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2021	G	O4'-C1'-N9	5.86	112.89	108.20
35	E	2059	A	C5-C6-N6	-5.86	119.01	123.70
35	E	19	A	C4-C5-C6	5.86	119.93	117.00
35	E	649	G	O4'-C1'-N9	5.86	112.89	108.20
35	E	732	C	C2-N1-C1'	5.86	125.24	118.80
35	E	734	G	O4'-C1'-N9	5.86	112.89	108.20
35	E	1985	C	N3-C4-N4	5.86	122.10	118.00
35	E	2009	C	N3-C4-C5	-5.86	119.56	121.90
35	E	2056	A	C4-C5-C6	5.86	119.93	117.00
35	E	2209	A	C5-C6-N1	-5.86	114.77	117.70
35	E	1083	G	O4'-C1'-N9	5.86	112.89	108.20
35	E	1362	A	C5-C6-N6	-5.86	119.02	123.70
35	E	2042	G	O4'-C1'-N9	5.86	112.89	108.20
35	E	2103	A	C5-C6-N1	-5.86	114.77	117.70
35	E	2179	G	O4'-C1'-N9	5.86	112.89	108.20
35	E	2209	A	C5-C6-N6	-5.86	119.02	123.70
35	E	593	G	O4'-C1'-N9	5.85	112.88	108.20
35	E	800	C	O4'-C1'-N1	5.85	112.88	108.20
1	p	301	TYR	CB-CG-CD2	-5.85	117.49	121.00
35	E	173	A	C4-C5-C6	5.85	119.92	117.00
35	E	800	C	N3-C4-N4	5.85	122.09	118.00
35	E	1634	C	C5-C4-N4	-5.85	116.11	120.20
35	E	2018	U	O4'-C1'-N1	5.85	112.88	108.20
35	E	2259	A	O4'-C1'-N9	5.85	112.88	108.20
35	E	401	A	C4-C5-C6	5.85	119.92	117.00
35	E	592	A	C5-C6-N1	-5.85	114.78	117.70
35	E	1187	C	C4'-C3'-C2'	-5.85	96.75	102.60
35	E	1333	A	C5-C6-N6	-5.85	119.02	123.70
35	E	1774	U	O4'-C1'-N1	5.85	112.88	108.20
35	E	1942	A	C4-C5-C6	5.85	119.92	117.00
35	E	2170	C	N3-C4-N4	5.85	122.09	118.00
35	E	280	C	N3-C4-N4	5.85	122.09	118.00
35	E	852	A	C5-C6-N1	-5.85	114.78	117.70
35	E	246	A	C5-C6-N1	-5.84	114.78	117.70
35	E	991	C	N3-C4-N4	5.84	122.09	118.00
35	E	1290	A	C4-C5-C6	5.84	119.92	117.00
35	E	1728	C	O4'-C1'-N1	5.84	112.88	108.20
35	E	1747	C	N3-C4-N4	5.84	122.09	118.00
35	E	123	A	C5-C6-N6	-5.84	119.03	123.70
35	E	905	A	C4-C5-C6	5.84	119.92	117.00
35	E	1595	A	C4-C5-C6	5.84	119.92	117.00
35	E	844	G	O4'-C1'-N9	5.84	112.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1526	A	C5-C6-N6	-5.84	119.03	123.70
35	E	2059	A	C4-C5-C6	5.84	119.92	117.00
35	E	190	A	C5-C6-N6	-5.84	119.03	123.70
35	E	1955	U	O4'-C1'-N1	5.84	112.87	108.20
35	E	2271	A	C5-C6-N1	-5.84	114.78	117.70
35	E	2192	A	O4'-C1'-N9	5.83	112.87	108.20
35	E	760	C	N3-C4-N4	5.83	122.08	118.00
35	E	2068	C	N3-C4-N4	5.83	122.08	118.00
35	E	810	U	O4'-C1'-N1	5.83	112.86	108.20
35	E	2117	C	N3-C4-N4	5.83	122.08	118.00
35	E	805	C	N3-C4-N4	5.83	122.08	118.00
35	E	1853	C	N3-C4-N4	5.83	122.08	118.00
35	E	39	A	C4-C5-C6	5.83	119.91	117.00
35	E	1346	G	C5-C6-O6	-5.83	125.10	128.60
35	E	457	A	C4-C5-C6	5.83	119.91	117.00
35	E	1742	C	N3-C4-N4	5.83	122.08	118.00
35	E	1801	C	N3-C4-N4	5.83	122.08	118.00
35	E	2263	G	N3-C2-N2	5.83	123.98	119.90
35	E	1616	C	N3-C4-N4	5.82	122.08	118.00
35	E	1177	C	O4'-C1'-N1	5.82	112.86	108.20
35	E	2281	A	C5-C6-N1	-5.82	114.79	117.70
35	E	65	A	C5-C6-N6	-5.82	119.04	123.70
35	E	351	A	C4-C5-C6	5.82	119.91	117.00
35	E	1298	C	N3-C4-N4	5.82	122.07	118.00
35	E	1797	A	C5-C6-N6	-5.82	119.04	123.70
35	E	1939	A	C5-C6-N1	-5.82	114.79	117.70
35	E	2274	A	O4'-C1'-N9	5.82	112.86	108.20
35	E	1803	A	C4-C5-C6	5.82	119.91	117.00
35	E	2080	A	C5-C6-N1	-5.82	114.79	117.70
35	E	98	U	O4'-C1'-N1	5.82	112.85	108.20
35	E	502	A	O4'-C1'-N9	5.82	112.85	108.20
35	E	547	G	C5'-C4'-C3'	5.82	125.31	116.00
35	E	1591	C	N3-C4-N4	5.82	122.07	118.00
35	E	1665	C	N3-C4-N4	5.82	122.07	118.00
35	E	177	A	C4-C5-C6	5.82	119.91	117.00
35	E	1529	A	C4-C5-C6	5.82	119.91	117.00
35	E	1832	A	C5-C6-N6	-5.82	119.05	123.70
35	E	2070	C	N3-C4-N4	5.82	122.07	118.00
35	E	884	A	C5-C6-N6	-5.81	119.05	123.70
35	E	1335	U	C2-N1-C1'	5.81	124.68	117.70
35	E	431	G	O4'-C1'-N9	5.81	112.85	108.20
35	E	839	C	N3-C4-N4	5.81	122.07	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	845	A	C5-C6-N6	-5.81	119.05	123.70
35	E	975	U	O4'-C1'-N1	5.81	112.85	108.20
35	E	1086	A	C5-C6-N1	-5.81	114.79	117.70
35	E	1363	C	N3-C4-N4	5.81	122.07	118.00
35	E	1936	A	C4-C5-C6	5.81	119.91	117.00
35	E	648	A	C5-C6-N1	-5.81	114.80	117.70
35	E	507	A	C4-C5-C6	5.81	119.90	117.00
35	E	1302	A	O4'-C1'-N9	5.81	112.85	108.20
35	E	1750	C	N3-C4-N4	5.81	122.07	118.00
35	E	4	C	O4'-C1'-N1	5.81	112.84	108.20
35	E	2	A	C5-C6-N6	-5.80	119.06	123.70
35	E	273	G	O4'-C1'-N9	5.80	112.84	108.20
35	E	321	G	O4'-C1'-N9	5.80	112.84	108.20
35	E	609	A	C5-C6-N1	-5.80	114.80	117.70
35	E	47	A	C5-C6-N1	-5.80	114.80	117.70
35	E	382	G	C5-C6-O6	-5.80	125.12	128.60
35	E	543	U	O4'-C1'-N1	5.80	112.84	108.20
35	E	1260	G	O4'-C1'-N9	5.80	112.84	108.20
35	E	1652	A	C5-C6-N1	-5.80	114.80	117.70
35	E	1653	U	O4'-C1'-N1	5.80	112.84	108.20
35	E	1222	A	C5-C6-N6	-5.80	119.06	123.70
35	E	1756	G	O4'-C1'-N9	5.80	112.84	108.20
35	E	367	A	O4'-C1'-N9	5.80	112.84	108.20
35	E	1205	A	C5-C6-N6	-5.80	119.06	123.70
35	E	1883	C	N3-C4-N4	5.80	122.06	118.00
35	E	65	A	C4-C5-C6	5.80	119.90	117.00
35	E	257	A	C5-C6-N1	-5.80	114.80	117.70
35	E	684	A	O4'-C1'-N9	5.80	112.84	108.20
35	E	826	A	C5-C6-N6	-5.80	119.06	123.70
35	E	1985	C	N3-C4-C5	-5.80	119.58	121.90
35	E	2111	A	C5-C6-N6	-5.80	119.06	123.70
35	E	215	A	C5-C6-N6	-5.79	119.06	123.70
35	E	438	A	C5-C6-N1	-5.79	114.80	117.70
35	E	817	A	C5-C6-N1	-5.79	114.80	117.70
35	E	1181	C	N3-C4-C5	-5.79	119.58	121.90
35	E	1806	C	N3-C4-C5	-5.79	119.58	121.90
35	E	2014	C	N3-C4-N4	5.79	122.06	118.00
35	E	831	A	C5-C6-N6	-5.79	119.06	123.70
35	E	840	C	N3-C4-C5	-5.79	119.58	121.90
35	E	1280	U	O4'-C1'-N1	5.79	112.83	108.20
35	E	1346	G	N3-C2-N2	5.79	123.95	119.90
35	E	458	C	N3-C4-N4	5.79	122.05	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	706	G	O4'-C1'-N9	5.79	112.83	108.20
35	E	830	C	N3-C4-N4	5.79	122.05	118.00
35	E	939	U	O4'-C1'-N1	5.79	112.83	108.20
35	E	1365	A	C4-C5-C6	5.79	119.90	117.00
35	E	1574	A	C5-C6-N6	-5.79	119.07	123.70
35	E	1627	C	N3-C4-N4	5.79	122.06	118.00
35	E	186	C	N3-C4-N4	5.79	122.05	118.00
35	E	643	C	N3-C4-N4	5.79	122.05	118.00
35	E	1652	A	C4-C5-C6	5.79	119.89	117.00
35	E	1669	G	O4'-C1'-N9	5.79	112.83	108.20
35	E	161	A	C5-C6-N1	-5.79	114.81	117.70
35	E	396	C	N3-C4-N4	5.79	122.05	118.00
35	E	867	G	N3-C2-N2	5.79	123.95	119.90
35	E	1681	A	C5-C6-N6	-5.79	119.07	123.70
35	E	1881	C	N3-C4-C5	-5.79	119.58	121.90
35	E	2058	C	N3-C4-C5	-5.79	119.58	121.90
35	E	898	A	C5-C6-N1	-5.79	114.81	117.70
35	E	1620	A	C4-C5-C6	5.79	119.89	117.00
35	E	88	G	O4'-C1'-N9	5.79	112.83	108.20
35	E	330	A	O4'-C1'-N9	5.79	112.83	108.20
35	E	336	C	N3-C4-N4	5.79	122.05	118.00
35	E	941	U	O4'-C1'-N1	5.79	112.83	108.20
35	E	1292	A	C5-C6-N6	-5.79	119.07	123.70
35	E	1948	G	C5-C6-O6	-5.79	125.13	128.60
35	E	428	C	N3-C4-N4	5.78	122.05	118.00
35	E	546	U	C6-N1-C1'	-5.78	113.10	121.20
35	E	2295	G	O4'-C1'-N9	5.78	112.83	108.20
35	E	63	G	O4'-C1'-N9	5.78	112.83	108.20
35	E	242	A	C5-C6-N6	-5.78	119.08	123.70
35	E	1222	A	C5-C6-N1	-5.78	114.81	117.70
35	E	2292	G	O4'-C1'-N9	5.78	112.82	108.20
35	E	1822	A	C5-C6-N1	-5.78	114.81	117.70
35	E	704	A	C5-C6-N6	-5.78	119.08	123.70
35	E	1847	C	N3-C4-C5	-5.78	119.59	121.90
35	E	164	G	O4'-C1'-N9	5.78	112.82	108.20
35	E	260	A	C5-C6-N6	-5.78	119.08	123.70
35	E	307	C	N3-C4-N4	5.78	122.04	118.00
35	E	348	A	O4'-C1'-N9	5.78	112.82	108.20
35	E	1372	C	N3-C4-N4	5.78	122.04	118.00
35	E	1903	A	C5-C6-N6	-5.78	119.08	123.70
35	E	495	G	O4'-C1'-N9	5.77	112.82	108.20
35	E	499	A	O4'-C1'-N9	5.77	112.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	529	A	C4-C5-C6	5.77	119.89	117.00
35	E	646	A	O4'-C1'-N9	5.77	112.82	108.20
35	E	1086	A	O4'-C1'-N9	5.77	112.82	108.20
35	E	324	U	O4'-C1'-N1	5.77	112.82	108.20
35	E	142	A	C4-C5-C6	5.77	119.89	117.00
35	E	149	A	C5-C6-N6	-5.77	119.08	123.70
35	E	417	A	C5-C6-N6	-5.77	119.08	123.70
35	E	519	G	N3-C2-N2	5.77	123.94	119.90
35	E	590	C	N3-C4-N4	5.77	122.04	118.00
35	E	783	A	O4'-C1'-N9	5.77	112.82	108.20
35	E	1800	U	O4'-C1'-N1	5.77	112.82	108.20
35	E	1932	G	O4'-C1'-N9	5.77	112.81	108.20
35	E	2078	C	N3-C4-N4	5.77	122.04	118.00
35	E	39	A	C5-C6-N1	-5.77	114.82	117.70
35	E	1698	A	O4'-C1'-N9	5.77	112.81	108.20
35	E	890	C	N3-C4-C5	-5.77	119.59	121.90
35	E	2045	A	C4-C5-C6	5.77	119.88	117.00
35	E	288	A	C4-C5-C6	5.76	119.88	117.00
35	E	304	A	C5-C6-N6	-5.76	119.09	123.70
35	E	471	C	N3-C4-N4	5.76	122.03	118.00
35	E	2173	C	N3-C4-C5	-5.76	119.59	121.90
35	E	1356	C	N3-C4-N4	5.76	122.03	118.00
35	E	2159	A	O4'-C1'-N9	5.76	112.81	108.20
35	E	1600	A	C5-C6-N1	-5.76	114.82	117.70
35	E	2134	A	C5-C6-N1	-5.76	114.82	117.70
35	E	94	C	N3-C4-N4	5.76	122.03	118.00
35	E	974	A	C4-C5-C6	5.76	119.88	117.00
35	E	1184	C	N3-C4-N4	5.76	122.03	118.00
35	E	254	A	C4-C5-C6	5.76	119.88	117.00
35	E	386	A	C5-C6-N1	-5.76	114.82	117.70
35	E	387	C	N3-C4-N4	5.76	122.03	118.00
35	E	710	A	C5-C6-N6	-5.76	119.10	123.70
35	E	1176	A	C5-C6-N6	-5.76	119.09	123.70
35	E	1231	U	O4'-C1'-N1	5.76	112.80	108.20
35	E	1830	C	N3-C4-N4	5.76	122.03	118.00
35	E	778	A	C5-C6-N1	-5.75	114.82	117.70
35	E	934	C	N3-C4-C5	-5.75	119.60	121.90
35	E	493	A	C5-C6-N6	-5.75	119.10	123.70
35	E	518	C	N3-C4-N4	5.75	122.03	118.00
35	E	666	U	O4'-C1'-N1	5.75	112.80	108.20
35	E	977	A	C4-C5-C6	5.75	119.88	117.00
35	E	1261	A	C4-C5-C6	5.75	119.88	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	26	A	C5-C6-N6	-5.75	119.10	123.70
35	E	427	U	O4'-C1'-N1	5.75	112.80	108.20
35	E	531	A	O4'-C1'-N9	5.75	112.80	108.20
35	E	788	A	C5-C6-N6	-5.75	119.10	123.70
35	E	1251	C	N3-C4-N4	5.75	122.03	118.00
35	E	1661	A	C5-C6-N6	-5.75	119.10	123.70
35	E	2069	A	C5-C6-N1	-5.75	114.82	117.70
35	E	2130	C	N3-C4-N4	5.75	122.03	118.00
35	E	781	A	C5-C6-N6	-5.75	119.10	123.70
35	E	894	A	C5-C6-N6	-5.75	119.10	123.70
35	E	1601	A	C5-C6-N6	-5.75	119.10	123.70
35	E	2102	C	N3-C4-N4	5.75	122.03	118.00
35	E	2123	C	N3-C4-N4	5.75	122.03	118.00
35	E	14	C	N3-C4-C5	-5.75	119.60	121.90
35	E	246	A	C4-C5-C6	5.75	119.87	117.00
35	E	1279	A	C5-C6-N1	-5.75	114.83	117.70
35	E	1553	A	C5-C6-N6	-5.75	119.10	123.70
35	E	1581	A	C4-C5-C6	5.75	119.87	117.00
35	E	1772	G	N3-C2-N2	5.75	123.92	119.90
35	E	1830	C	N3-C4-C5	-5.75	119.60	121.90
35	E	2294	A	C5-C6-N6	-5.75	119.10	123.70
35	E	295	A	C5-C6-N6	-5.75	119.10	123.70
35	E	873	C	N3-C4-C5	-5.75	119.60	121.90
35	E	1817	G	O4'-C1'-N9	5.75	112.80	108.20
35	E	214	C	N3-C4-N4	5.74	122.02	118.00
35	E	675	A	C5-C6-N1	-5.74	114.83	117.70
35	E	1716	C	N3-C4-C5	-5.74	119.60	121.90
35	E	624	A	C5-C6-N1	-5.74	114.83	117.70
35	E	640	G	O4'-C1'-N9	5.74	112.79	108.20
35	E	1171	C	N3-C4-C5	-5.74	119.60	121.90
35	E	1629	C	N3-C4-C5	-5.74	119.60	121.90
35	E	1651	A	C5-C6-N6	-5.74	119.11	123.70
35	E	2145	A	C5-C6-N6	-5.74	119.11	123.70
35	E	2283	A	C4-C5-C6	5.74	119.87	117.00
35	E	599	A	C5-C6-N1	-5.74	114.83	117.70
35	E	1628	A	C4-C5-C6	5.74	119.87	117.00
35	E	2174	C	N3-C4-N4	5.74	122.02	118.00
35	E	438	A	C4-C5-C6	5.74	119.87	117.00
35	E	529	A	C5-C6-N1	-5.74	114.83	117.70
35	E	619	C	N3-C4-N4	5.74	122.02	118.00
35	E	1217	A	C5-C6-N6	-5.74	119.11	123.70
35	E	2228	C	N3-C4-C5	-5.74	119.61	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	504	A	O4'-C1'-N9	5.74	112.79	108.20
35	E	659	A	C5-C6-N6	-5.74	119.11	123.70
35	E	1265	A	C5-C6-N6	-5.74	119.11	123.70
35	E	1279	A	C5-C6-N6	-5.74	119.11	123.70
35	E	1875	G	O4'-C1'-N9	5.74	112.79	108.20
35	E	167	A	C5-C6-N6	-5.73	119.11	123.70
35	E	369	C	O4'-C1'-N1	5.73	112.79	108.20
35	E	618	G	O4'-C1'-N9	5.73	112.79	108.20
35	E	775	A	C4-C5-C6	5.73	119.87	117.00
35	E	1235	A	C5-C6-N6	-5.73	119.11	123.70
35	E	1240	A	C5-C6-N1	-5.73	114.83	117.70
35	E	1812	A	C4-C5-C6	5.73	119.87	117.00
35	E	28	A	O4'-C1'-N9	5.73	112.79	108.20
35	E	552	G	O4'-C1'-N9	5.73	112.79	108.20
35	E	773	U	O4'-C1'-N1	5.73	112.78	108.20
35	E	787	C	N3-C4-N4	5.73	122.01	118.00
35	E	791	G	O4'-C1'-N9	5.73	112.78	108.20
35	E	1255	A	C4-C5-C6	5.73	119.87	117.00
35	E	2031	A	C5-C6-N1	-5.73	114.83	117.70
35	E	28	A	C5-C6-N6	-5.73	119.12	123.70
35	E	516	A	O4'-C1'-N9	5.73	112.78	108.20
35	E	694	A	P-O3'-C3'	5.73	126.58	119.70
35	E	701	C	N3-C4-N4	5.73	122.01	118.00
35	E	783	A	C5-C6-N6	-5.73	119.12	123.70
35	E	142	A	C5-C6-N6	-5.73	119.12	123.70
35	E	1368	A	C5-C6-N6	-5.73	119.12	123.70
35	E	1616	C	N3-C4-C5	-5.73	119.61	121.90
35	E	114	C	N3-C4-C5	-5.72	119.61	121.90
35	E	978	U	O4'-C1'-N1	5.72	112.78	108.20
35	E	1175	A	C5-C6-N6	-5.72	119.12	123.70
35	E	1671	A	C5-C6-N6	-5.72	119.12	123.70
35	E	1781	A	C5-C6-N6	-5.72	119.12	123.70
35	E	1984	A	C5-C6-N1	-5.72	114.84	117.70
35	E	2237	G	O4'-C1'-N9	5.72	112.78	108.20
35	E	249	A	C5-C6-N6	-5.72	119.12	123.70
35	E	408	C	N3-C4-N4	5.72	122.01	118.00
35	E	507	A	O4'-C1'-N9	5.72	112.78	108.20
35	E	639	A	C5-C6-N1	-5.72	114.84	117.70
35	E	1289	G	O4'-C1'-N9	5.72	112.78	108.20
35	E	1974	C	N3-C4-C5	-5.72	119.61	121.90
35	E	2122	G	O4'-C1'-N9	5.72	112.78	108.20
35	E	916	A	C5-C6-N6	-5.72	119.12	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1553	A	C5-C6-N1	-5.72	114.84	117.70
35	E	875	A	C5-C6-N6	-5.72	119.12	123.70
35	E	942	C	C2'-C3'-O3'	5.72	122.85	113.70
35	E	974	A	C5-C6-N6	-5.72	119.12	123.70
35	E	1862	C	N3-C4-N4	5.72	122.00	118.00
35	E	2238	A	C5-C6-N1	-5.72	114.84	117.70
35	E	20	G	O4'-C1'-N9	5.72	112.77	108.20
35	E	809	A	C5-C6-N6	-5.72	119.13	123.70
35	E	822	A	C4-C5-C6	5.72	119.86	117.00
35	E	1172	C	N3-C4-N4	5.72	122.00	118.00
35	E	1248	A	O4'-C1'-N9	5.72	112.77	108.20
35	E	1370	A	C5-C6-N6	-5.72	119.13	123.70
35	E	1681	A	C5-C6-N1	-5.72	114.84	117.70
35	E	1966	C	C2-N1-C1'	5.72	125.09	118.80
35	E	2167	A	C5-C6-N6	-5.72	119.13	123.70
35	E	288	A	O4'-C1'-N9	5.71	112.77	108.20
35	E	984	A	C4-C5-C6	5.71	119.86	117.00
35	E	2145	A	C5-C6-N1	-5.71	114.84	117.70
35	E	2165	A	C4-C5-C6	5.71	119.86	117.00
35	E	466	G	O4'-C1'-N9	5.71	112.77	108.20
35	E	873	C	O4'-C1'-N1	5.71	112.77	108.20
35	E	1210	G	O4'-C1'-N9	5.71	112.77	108.20
35	E	261	A	C4-C5-C6	5.71	119.86	117.00
35	E	1167	C	N3-C4-C5	-5.71	119.61	121.90
35	E	2001	A	C4-C5-C6	5.71	119.86	117.00
35	E	2273	A	C5-C6-N1	-5.71	114.84	117.70
35	E	73	A	C4-C5-C6	5.71	119.86	117.00
35	E	148	G	O4'-C1'-N9	5.71	112.77	108.20
35	E	182	C	N3-C4-N4	5.71	122.00	118.00
35	E	1086	A	C4-C5-C6	5.71	119.86	117.00
35	E	2216	A	C4-C5-C6	5.71	119.86	117.00
35	E	711	A	C4-C5-C6	5.71	119.85	117.00
35	E	2005	A	C5-C6-N6	-5.71	119.13	123.70
35	E	2167	A	C4-C5-C6	5.71	119.85	117.00
35	E	1076	C	N3-C4-C5	-5.71	119.62	121.90
35	E	532	G	O4'-C1'-N9	5.70	112.76	108.20
35	E	718	A	O4'-C1'-N9	5.70	112.76	108.20
35	E	883	C	O4'-C1'-N1	5.70	112.76	108.20
35	E	1672	C	N3-C4-N4	5.70	121.99	118.00
35	E	596	A	C5-C6-N6	-5.70	119.14	123.70
35	E	1250	A	C5-C6-N1	-5.70	114.85	117.70
35	E	1292	A	C4-C5-C6	5.70	119.85	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1534	A	C4-C5-C6	5.70	119.85	117.00
35	E	610	A	C4-C5-C6	5.70	119.85	117.00
35	E	861	A	C4-C5-C6	5.70	119.85	117.00
35	E	915	A	C5-C6-N6	-5.70	119.14	123.70
35	E	1088	A	C5-C6-N1	-5.70	114.85	117.70
35	E	1192	A	C5-C6-N6	-5.70	119.14	123.70
35	E	469	G	O4'-C1'-N9	5.70	112.76	108.20
35	E	1077	C	O4'-C1'-N1	5.70	112.76	108.20
35	E	1263	G	O4'-C1'-N9	5.70	112.76	108.20
35	E	1529	A	O4'-C1'-N9	5.70	112.76	108.20
35	E	1676	A	C5-C6-N1	-5.70	114.85	117.70
35	E	1866	A	C5-C6-N6	-5.70	119.14	123.70
35	E	1966	C	N3-C4-N4	5.70	121.99	118.00
35	E	2211	C	N3-C4-N4	5.70	121.99	118.00
35	E	152	A	C4-C5-C6	5.70	119.85	117.00
35	E	742	A	C4-C5-C6	5.70	119.85	117.00
35	E	934	C	N3-C4-N4	5.70	121.99	118.00
35	E	569	A	C5-C6-N6	-5.69	119.14	123.70
35	E	745	C	C6-N1-C2	-5.69	118.02	120.30
35	E	935	A	C5-C6-N1	-5.69	114.85	117.70
35	E	123	A	C4-C5-C6	5.69	119.85	117.00
35	E	168	A	C5-C6-N6	-5.69	119.15	123.70
35	E	498	A	C5-C6-N6	-5.69	119.15	123.70
35	E	586	A	C5-C6-N6	-5.69	119.15	123.70
35	E	723	C	N3-C4-N4	5.69	121.98	118.00
35	E	1568	A	C5-C6-N6	-5.69	119.15	123.70
35	E	1595	A	C5-C6-N1	-5.69	114.85	117.70
35	E	1799	A	C5-C6-N1	-5.69	114.85	117.70
35	E	1845	C	N3-C4-N4	5.69	121.98	118.00
35	E	227	U	O4'-C1'-N1	5.69	112.75	108.20
35	E	1627	C	O4'-C1'-N1	5.69	112.75	108.20
35	E	1926	G	O4'-C1'-N9	5.69	112.75	108.20
35	E	542	C	N3-C4-N4	5.69	121.98	118.00
35	E	668	C	N3-C4-N4	5.69	121.98	118.00
35	E	1896	C	N3-C4-C5	-5.69	119.62	121.90
35	E	2090	U	O4'-C1'-N1	5.69	112.75	108.20
35	E	1275	A	C4-C5-C6	5.69	119.84	117.00
35	E	639	A	C5-C6-N6	-5.68	119.15	123.70
35	E	1257	C	N3-C4-N4	5.68	121.98	118.00
35	E	68	A	C5-C6-N6	-5.68	119.16	123.70
35	E	1205	A	O4'-C1'-N9	5.68	112.75	108.20
35	E	1539	A	C5-C6-N6	-5.68	119.16	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	112	A	C4-C5-C6	5.68	119.84	117.00
35	E	479	G	O4'-C1'-N9	5.68	112.74	108.20
35	E	1807	U	O4'-C1'-N1	5.68	112.74	108.20
35	E	1811	C	N3-C4-N4	5.68	121.97	118.00
35	E	2032	U	C2-N1-C1'	5.68	124.52	117.70
35	E	2149	C	N3-C4-N4	5.68	121.98	118.00
35	E	945	C	N3-C4-N4	5.68	121.97	118.00
35	E	2245	A	O4'-C1'-N9	5.68	112.74	108.20
35	E	256	A	C5-C6-N6	-5.68	119.16	123.70
35	E	522	A	C4-C5-C6	5.68	119.84	117.00
35	E	735	A	C5-C6-N6	-5.68	119.16	123.70
35	E	2047	A	C5-C6-N6	-5.68	119.16	123.70
35	E	2245	A	C5-C6-N1	-5.68	114.86	117.70
35	E	417	A	O4'-C1'-N9	5.67	112.74	108.20
35	E	467	A	C5-C6-N1	-5.67	114.86	117.70
35	E	2267	A	O4'-C1'-N9	5.67	112.74	108.20
35	E	782	A	C5-C6-N6	-5.67	119.16	123.70
35	E	2048	A	O4'-C1'-N9	5.67	112.74	108.20
35	E	44	C	N3-C4-C5	-5.67	119.63	121.90
35	E	314	A	C5-C6-N6	-5.67	119.16	123.70
35	E	598	A	C5-C6-N6	-5.67	119.16	123.70
35	E	698	C	N3-C4-N4	5.67	121.97	118.00
35	E	732	C	P-O3'-C3'	5.67	126.51	119.70
35	E	1987	A	O4'-C1'-N9	5.67	112.74	108.20
35	E	690	A	C5-C6-N1	-5.67	114.86	117.70
35	E	860	U	O4'-C1'-N1	5.67	112.74	108.20
35	E	362	C	N3-C4-C5	-5.67	119.63	121.90
35	E	1915	G	O4'-C1'-N9	5.67	112.73	108.20
35	E	492	A	C4-C5-C6	5.67	119.83	117.00
35	E	500	A	C5-C6-N6	-5.67	119.17	123.70
35	E	1529	A	C5-C6-N6	-5.67	119.17	123.70
35	E	994	G	O4'-C1'-N9	5.67	112.73	108.20
35	E	1815	A	C5-C6-N1	-5.67	114.87	117.70
35	E	1942	A	C5-C6-N6	-5.67	119.17	123.70
35	E	2048	A	C5-C6-N6	-5.67	119.17	123.70
35	E	293	U	O4'-C1'-N1	5.66	112.73	108.20
35	E	516	A	C5-C6-N6	-5.66	119.17	123.70
35	E	858	A	C5-C6-N1	-5.66	114.87	117.70
35	E	861	A	O4'-C1'-N9	5.66	112.73	108.20
35	E	959	A	C5-C6-N1	-5.66	114.87	117.70
35	E	1270	A	C5-C6-N1	-5.66	114.87	117.70
35	E	1959	C	N3-C4-C5	-5.66	119.63	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	62	A	O4'-C1'-N9	5.66	112.73	108.20
35	E	174	U	O4'-C1'-N1	5.66	112.73	108.20
35	E	366	C	N3-C4-C5	-5.66	119.64	121.90
35	E	2011	A	C5-C6-N6	-5.66	119.17	123.70
35	E	2098	C	N3-C4-N4	5.66	121.96	118.00
35	E	765	A	C5-C6-N1	-5.66	114.87	117.70
35	E	1086	A	C5-C6-N6	-5.66	119.17	123.70
35	E	1181	C	N3-C4-N4	5.66	121.96	118.00
35	E	1922	G	O4'-C1'-N9	5.66	112.73	108.20
35	E	2065	A	C5-C6-N1	-5.66	114.87	117.70
35	E	434	A	C5-C6-N1	-5.66	114.87	117.70
35	E	571	A	C5-C6-N1	-5.66	114.87	117.70
35	E	707	C	N3-C4-N4	5.66	121.96	118.00
35	E	990	A	C5-C6-N6	-5.66	119.17	123.70
35	E	852	A	C5-C6-N6	-5.66	119.18	123.70
35	E	1733	A	C5-C6-N6	-5.66	119.18	123.70
35	E	2236	C	N3-C4-C5	-5.66	119.64	121.90
35	E	910	A	C4-C5-C6	5.65	119.83	117.00
35	E	1299	U	O4'-C1'-N1	5.65	112.72	108.20
35	E	2141	G	O4'-C1'-N9	5.65	112.72	108.20
35	E	2236	C	N3-C4-N4	5.65	121.96	118.00
35	E	2299	A	C5-C6-N6	-5.65	119.18	123.70
35	E	300	A	C5-C6-N1	-5.65	114.88	117.70
35	E	647	A	O4'-C1'-N9	5.65	112.72	108.20
35	E	728	A	C5-C6-N6	-5.65	119.18	123.70
35	E	771	A	C5-C6-N6	-5.65	119.18	123.70
35	E	1279	A	C4-C5-C6	5.65	119.83	117.00
35	E	2173	C	N3-C4-N4	5.65	121.95	118.00
35	E	1999	A	O4'-C1'-N9	5.65	112.72	108.20
35	E	2264	A	C5-C6-N1	-5.65	114.88	117.70
35	E	1215	A	C5-C6-N6	-5.65	119.18	123.70
35	E	1383	G	O4'-C1'-N9	5.65	112.72	108.20
35	E	2039	A	C5-C6-N1	-5.65	114.88	117.70
35	E	141	A	C5-C6-N1	-5.65	114.88	117.70
35	E	2169	A	C5-C6-N6	-5.65	119.18	123.70
35	E	237	A	C4-C5-C6	5.64	119.82	117.00
35	E	633	A	C4-C5-C6	5.64	119.82	117.00
35	E	941	U	P-O3'-C3'	5.64	126.47	119.70
35	E	2105	C	N3-C4-N4	5.64	121.95	118.00
35	E	348	A	C5-C6-N1	-5.64	114.88	117.70
35	E	629	C	N3-C4-N4	5.64	121.95	118.00
35	E	282	C	N3-C4-N4	5.64	121.95	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	447	A	C5-C6-N6	-5.64	119.19	123.70
35	E	503	A	C5-C6-N6	-5.64	119.19	123.70
35	E	754	G	O4'-C1'-N9	5.64	112.71	108.20
35	E	1637	G	N3-C2-N2	5.64	123.85	119.90
35	E	407	G	O4'-C1'-N9	5.64	112.71	108.20
35	E	865	A	C5-C6-N6	-5.64	119.19	123.70
35	E	880	A	C4-C5-C6	5.64	119.82	117.00
35	E	1355	A	C5-C6-N6	-5.64	119.19	123.70
35	E	1574	A	C5-C6-N1	-5.64	114.88	117.70
35	E	1793	G	O4'-C1'-N9	5.64	112.71	108.20
35	E	1904	U	O4'-C1'-N1	5.64	112.71	108.20
35	E	1982	C	N3-C4-N4	5.63	121.94	118.00
35	E	40	A	C5-C6-N6	-5.63	119.19	123.70
35	E	348	A	C5-C6-N6	-5.63	119.19	123.70
35	E	157	G	O4'-C1'-N9	5.63	112.70	108.20
35	E	954	G	O4'-C1'-N9	5.63	112.70	108.20
35	E	1343	A	C5-C6-N1	-5.63	114.88	117.70
35	E	1232	C	N3-C4-N4	5.63	121.94	118.00
35	E	1261	A	O4'-C1'-N9	5.63	112.70	108.20
35	E	355	G	O4'-C1'-N9	5.63	112.70	108.20
35	E	1237	G	O4'-C1'-N9	5.63	112.70	108.20
35	E	1357	U	O4'-C1'-N1	5.63	112.70	108.20
35	E	1679	A	C5-C6-N6	-5.63	119.20	123.70
35	E	1833	U	O4'-C1'-N1	5.63	112.70	108.20
35	E	2037	A	O4'-C1'-N9	5.63	112.70	108.20
35	E	2137	C	N3-C4-C5	-5.63	119.65	121.90
35	E	1869	G	O4'-C1'-N9	5.63	112.70	108.20
35	E	2036	A	C5-C6-N6	-5.63	119.20	123.70
35	E	2166	C	N3-C4-C5	-5.63	119.65	121.90
35	E	662	C	N3-C4-N4	5.62	121.94	118.00
4	t	122	TYR	CB-CG-CD1	5.62	124.37	121.00
35	E	160	A	O4'-C1'-N9	5.62	112.70	108.20
35	E	444	A	C5-C6-N6	-5.62	119.20	123.70
35	E	1241	A	C5-C6-N1	-5.62	114.89	117.70
35	E	2199	A	C5-C6-N6	-5.62	119.20	123.70
35	E	727	C	N3-C4-N4	5.62	121.94	118.00
35	E	771	A	C4-C5-C6	5.62	119.81	117.00
35	E	1203	G	O4'-C1'-N9	5.62	112.70	108.20
35	E	1987	A	C5-C6-N6	-5.62	119.20	123.70
35	E	2035	A	O4'-C1'-N9	5.62	112.70	108.20
35	E	2198	C	N3-C4-N4	5.62	121.93	118.00
35	E	499	A	C5-C6-N6	-5.62	119.20	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	781	A	O4'-C1'-N9	5.62	112.70	108.20
30	m	144	GLN	N-CA-CB	5.62	120.71	110.60
35	E	180	A	C5-C6-N6	-5.62	119.20	123.70
35	E	367	A	C4-C5-C6	5.62	119.81	117.00
35	E	760	C	N3-C4-C5	-5.62	119.65	121.90
35	E	928	C	N3-C4-N4	5.62	121.93	118.00
35	E	1789	A	C4-C5-C6	5.62	119.81	117.00
35	E	2050	C	O4'-C1'-N1	5.62	112.69	108.20
35	E	1907	C	N3-C4-N4	5.62	121.93	118.00
35	E	151	A	C4-C5-C6	5.62	119.81	117.00
35	E	648	A	C4-C5-C6	5.62	119.81	117.00
35	E	1170	C	N3-C4-C5	-5.62	119.65	121.90
35	E	1268	A	C5-C6-N1	-5.62	114.89	117.70
35	E	1824	A	C4-C5-C6	5.62	119.81	117.00
35	E	2044	G	O4'-C1'-N9	5.62	112.69	108.20
35	E	44	C	N3-C4-N4	5.61	121.93	118.00
35	E	1605	A	C5-C6-N1	-5.61	114.89	117.70
35	E	1651	A	C4-C5-C6	5.61	119.81	117.00
35	E	2278	G	O4'-C1'-N9	5.61	112.69	108.20
35	E	2297	U	O4'-C1'-N1	5.61	112.69	108.20
35	E	414	A	C5-C6-N1	-5.61	114.89	117.70
35	E	433	G	O4'-C1'-N9	5.61	112.69	108.20
35	E	816	C	N3-C4-N4	5.61	121.93	118.00
35	E	990	A	O4'-C1'-N9	5.61	112.69	108.20
35	E	1312	A	C5-C6-N6	-5.61	119.21	123.70
35	E	1552	A	C5-C6-N1	-5.61	114.89	117.70
35	E	504	A	C5-C6-N6	-5.61	119.21	123.70
35	E	586	A	O4'-C1'-N9	5.61	112.69	108.20
35	E	599	A	C5-C6-N6	-5.61	119.21	123.70
35	E	2260	A	C5-C6-N1	-5.61	114.89	117.70
2	q	30	ALA	N-CA-CB	5.61	117.95	110.10
35	E	1865	A	O4'-C1'-N9	5.61	112.69	108.20
35	E	1881	C	N3-C4-N4	5.61	121.93	118.00
35	E	254	A	P-O3'-C3'	5.61	126.43	119.70
35	E	268	C	N3-C4-N4	5.61	121.92	118.00
35	E	879	C	N3-C4-N4	5.61	121.92	118.00
35	E	1863	C	N3-C4-C5	-5.61	119.66	121.90
35	E	2049	C	N3-C4-C5	-5.61	119.66	121.90
35	E	2192	A	C5-C6-N1	-5.61	114.90	117.70
35	E	57	G	O4'-C1'-N9	5.61	112.68	108.20
35	E	501	A	C5-C6-N6	-5.61	119.22	123.70
35	E	506	A	C5-C6-N6	-5.61	119.22	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	821	C	O4'-C1'-N1	5.61	112.69	108.20
35	E	992	A	C5-C6-N6	-5.61	119.22	123.70
35	E	1248	A	C5-C6-N6	-5.61	119.22	123.70
35	E	2272	A	C5-C6-N6	-5.61	119.22	123.70
3	r	85	TYR	CB-CG-CD2	-5.60	117.64	121.00
35	E	1619	A	C4-C5-C6	5.60	119.80	117.00
35	E	1919	A	O4'-C1'-N9	5.60	112.68	108.20
35	E	2027	C	C6-N1-C1'	-5.60	114.08	120.80
35	E	159	G	N3-C2-N2	5.60	123.82	119.90
35	E	747	U	O4'-C1'-N1	5.60	112.68	108.20
35	E	750	C	N3-C4-C5	-5.60	119.66	121.90
35	E	874	C	N3-C4-N4	5.60	121.92	118.00
35	E	922	C	N3-C4-C5	-5.60	119.66	121.90
35	E	1829	C	N3-C4-C5	-5.60	119.66	121.90
35	E	1919	A	C5-C6-N1	-5.60	114.90	117.70
35	E	2076	A	C5-C6-N1	-5.60	114.90	117.70
35	E	2270	C	N3-C4-N4	5.60	121.92	118.00
35	E	352	A	C5-C6-N6	-5.60	119.22	123.70
35	E	1211	G	O4'-C1'-N9	5.60	112.68	108.20
35	E	1845	C	N3-C4-C5	-5.60	119.66	121.90
35	E	577	A	C5-C6-N6	-5.60	119.22	123.70
35	E	779	A	C5-C6-N6	-5.60	119.22	123.70
35	E	1784	C	N3-C4-C5	-5.60	119.66	121.90
35	E	2283	A	C5-C6-N6	-5.60	119.22	123.70
35	E	107	A	C5-C6-N6	-5.60	119.22	123.70
35	E	217	C	N3-C4-N4	5.60	121.92	118.00
35	E	569	A	C5-C6-N1	-5.60	114.90	117.70
35	E	810	U	C2'-C3'-O3'	5.60	122.66	113.70
35	E	1823	G	O4'-C1'-N9	5.60	112.68	108.20
35	E	2172	G	O4'-C1'-N9	5.60	112.68	108.20
35	E	314	A	C5-C6-N1	-5.59	114.90	117.70
35	E	318	C	N3-C4-N4	5.59	121.92	118.00
35	E	376	C	N3-C4-N4	5.59	121.92	118.00
35	E	2104	A	C5-C6-N1	-5.59	114.90	117.70
35	E	56	U	O4'-C1'-N1	5.59	112.67	108.20
35	E	364	G	O4'-C1'-N9	5.59	112.67	108.20
35	E	587	A	C5-C6-N6	-5.59	119.23	123.70
35	E	778	A	C5-C6-N6	-5.59	119.23	123.70
35	E	1706	A	O4'-C1'-N9	5.59	112.67	108.20
35	E	208	G	O4'-C1'-N9	5.59	112.67	108.20
35	E	474	C	N3-C4-N4	5.59	121.91	118.00
35	E	1196	A	C5-C6-N6	-5.59	119.23	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1323	A	C5-C6-N1	-5.59	114.91	117.70
35	E	2026	A	C5-C6-N6	-5.59	119.23	123.70
35	E	879	C	O4'-C1'-N1	5.59	112.67	108.20
35	E	1255	A	C5-C6-N6	-5.59	119.23	123.70
35	E	1698	A	C5-C6-N1	-5.59	114.91	117.70
35	E	256	A	C5-C6-N1	-5.59	114.91	117.70
35	E	101	C	N3-C4-N4	5.58	121.91	118.00
35	E	139	G	O4'-C1'-N9	5.58	112.67	108.20
35	E	452	C	N3-C4-N4	5.58	121.91	118.00
35	E	942	C	N3-C4-N4	5.58	121.91	118.00
35	E	81	A	C5-C6-N1	-5.58	114.91	117.70
35	E	112	A	C5-C6-N6	-5.58	119.23	123.70
35	E	595	A	C5-C6-N6	-5.58	119.23	123.70
35	E	1180	A	C5-C6-N6	-5.58	119.23	123.70
35	E	1626	C	N3-C4-C5	-5.58	119.67	121.90
35	E	788	A	C5-C6-N1	-5.58	114.91	117.70
35	E	995	C	N3-C4-C5	-5.58	119.67	121.90
35	E	1312	A	O4'-C1'-N9	5.58	112.67	108.20
35	E	43	A	C5-C6-N6	-5.58	119.24	123.70
35	E	1878	A	C5-C6-N6	-5.58	119.24	123.70
35	E	2060	C	N3-C4-N4	5.58	121.91	118.00
35	E	124	A	C5-C6-N1	-5.58	114.91	117.70
35	E	675	A	C4-C5-C6	5.58	119.79	117.00
35	E	833	A	C5-C6-N1	-5.58	114.91	117.70
35	E	2274	A	C5-C6-N6	-5.58	119.24	123.70
35	E	100	A	C5-C6-N1	-5.58	114.91	117.70
35	E	158	C	N3-C4-N4	5.58	121.90	118.00
35	E	1684	C	N3-C4-C5	-5.58	119.67	121.90
35	E	2048	A	C5-C6-N1	-5.58	114.91	117.70
35	E	2107	A	C4-C5-C6	5.58	119.79	117.00
35	E	2130	C	N3-C4-C5	-5.58	119.67	121.90
35	E	837	C	N3-C4-N4	5.57	121.90	118.00
35	E	1215	A	C5-C6-N1	-5.57	114.91	117.70
35	E	1781	A	C5-C6-N1	-5.57	114.91	117.70
35	E	1812	A	C5-C6-N1	-5.57	114.91	117.70
35	E	1574	A	O4'-C1'-N9	5.57	112.66	108.20
35	E	2259	A	C5-C6-N6	-5.57	119.24	123.70
35	E	279	A	C5-C6-N1	-5.57	114.92	117.70
20	f	172	TYR	CB-CG-CD1	5.57	124.34	121.00
35	E	446	A	C5-C6-N1	-5.57	114.92	117.70
35	E	1670	A	C5-C6-N6	-5.57	119.25	123.70
35	E	425	A	C5-C6-N6	-5.57	119.25	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	577	A	C5-C6-N1	-5.57	114.92	117.70
35	E	1528	C	N3-C4-N4	5.57	121.90	118.00
35	E	1631	A	C5-C6-N6	-5.57	119.25	123.70
35	E	257	A	C5-C6-N6	-5.56	119.25	123.70
35	E	960	A	C5-C6-N6	-5.56	119.25	123.70
35	E	821	C	N3-C4-N4	5.56	121.89	118.00
35	E	1287	A	O4'-C1'-N9	5.56	112.65	108.20
35	E	1960	A	C5-C6-N6	-5.56	119.25	123.70
35	E	2066	C	N3-C4-C5	-5.56	119.67	121.90
35	E	161	A	C5-C6-N6	-5.56	119.25	123.70
35	E	1530	C	N3-C4-N4	5.56	121.89	118.00
35	E	1610	A	C5-C6-N1	-5.56	114.92	117.70
35	E	231	A	O4'-C1'-N9	5.56	112.65	108.20
35	E	1999	A	C5-C6-N6	-5.56	119.25	123.70
35	E	2000	C	N3-C4-C5	-5.56	119.68	121.90
35	E	82	A	C5-C6-N6	-5.56	119.25	123.70
35	E	362	C	N3-C4-N4	5.56	121.89	118.00
35	E	1255	A	O4'-C1'-N9	5.56	112.65	108.20
35	E	1676	A	C5-C6-N6	-5.56	119.25	123.70
35	E	1866	A	O4'-C1'-N9	5.56	112.65	108.20
35	E	251	A	P-O3'-C3'	5.56	126.37	119.70
35	E	1877	U	O4'-C1'-N1	5.56	112.64	108.20
35	E	1991	C	N3-C4-N4	5.56	121.89	118.00
35	E	2036	A	C5-C6-N1	-5.56	114.92	117.70
35	E	177	A	C5-C6-N1	-5.55	114.92	117.70
35	E	644	C	O4'-C1'-N1	5.55	112.64	108.20
35	E	724	A	C5'-C4'-O4'	5.55	115.77	109.10
35	E	951	U	O4'-C1'-N1	5.55	112.64	108.20
35	E	1689	A	C5-C6-N1	-5.55	114.92	117.70
35	E	704	A	C5-C6-N1	-5.55	114.92	117.70
35	E	873	C	N3-C4-N4	5.55	121.89	118.00
35	E	1217	A	O4'-C1'-N9	5.55	112.64	108.20
35	E	1670	A	C4-C5-C6	5.55	119.78	117.00
35	E	1925	A	O4'-C1'-N9	5.55	112.64	108.20
35	E	623	C	N3-C4-N4	5.55	121.89	118.00
35	E	902	A	C5-C6-N6	-5.55	119.26	123.70
35	E	1523	C	N3-C4-N4	5.55	121.89	118.00
35	E	1607	A	O4'-C1'-N9	5.55	112.64	108.20
35	E	59	C	N3-C4-N4	5.55	121.89	118.00
35	E	102	A	O4'-C1'-N9	5.55	112.64	108.20
35	E	384	G	O4'-C1'-N9	5.55	112.64	108.20
35	E	392	A	C5-C6-N6	-5.55	119.26	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	561	A	O4'-C1'-N9	5.55	112.64	108.20
35	E	1525	C	N3-C4-N4	5.55	121.89	118.00
35	E	1687	A	C4-C5-C6	5.55	119.77	117.00
35	E	124	A	C5-C6-N6	-5.55	119.26	123.70
35	E	1724	A	C5-C6-N1	-5.55	114.93	117.70
35	E	2126	A	C5-C6-N6	-5.55	119.26	123.70
35	E	380	U	O4'-C1'-N1	5.55	112.64	108.20
35	E	438	A	C5-C6-N6	-5.55	119.26	123.70
35	E	1192	A	C5-C6-N1	-5.55	114.93	117.70
35	E	1308	A	C5-C6-N1	-5.55	114.93	117.70
35	E	1662	A	C5-C6-N6	-5.55	119.26	123.70
35	E	1831	C	N3-C4-N4	5.55	121.88	118.00
35	E	2050	C	N3-C4-C5	-5.55	119.68	121.90
35	E	2195	G	O4'-C1'-N9	5.55	112.64	108.20
35	E	511	G	O4'-C1'-N9	5.54	112.64	108.20
35	E	549	A	C5-C6-N1	-5.54	114.93	117.70
35	E	187	C	N3-C4-N4	5.54	121.88	118.00
35	E	1264	A	C5-C6-N6	-5.54	119.27	123.70
35	E	1622	G	O4'-C1'-N9	5.54	112.64	108.20
35	E	1728	C	N3-C4-N4	5.54	121.88	118.00
35	E	2063	A	C5-C6-N1	-5.54	114.93	117.70
35	E	2189	A	O4'-C1'-N9	5.54	112.64	108.20
35	E	19	A	C5-C6-N1	-5.54	114.93	117.70
35	E	831	A	C5-C6-N1	-5.54	114.93	117.70
35	E	2097	U	C2-N1-C1'	5.54	124.35	117.70
35	E	2100	C	N3-C4-N4	5.54	121.88	118.00
35	E	2117	C	O4'-C1'-N1	5.54	112.63	108.20
35	E	2267	A	C5-C6-N6	-5.54	119.27	123.70
35	E	527	A	C5-C6-N1	-5.54	114.93	117.70
35	E	972	A	C5-C6-N6	-5.54	119.27	123.70
35	E	61	C	N3-C4-N4	5.54	121.88	118.00
35	E	107	A	O4'-C1'-N9	5.54	112.63	108.20
35	E	215	A	C5-C6-N1	-5.54	114.93	117.70
35	E	793	A	C4-C5-C6	5.54	119.77	117.00
35	E	1317	G	O4'-C1'-N9	5.54	112.63	108.20
35	E	1951	A	C4-C5-C6	5.54	119.77	117.00
35	E	216	A	C5-C6-N6	-5.54	119.27	123.70
35	E	735	A	C5-C6-N1	-5.54	114.93	117.70
35	E	2124	G	O4'-C1'-N9	5.54	112.63	108.20
35	E	125	A	O4'-C1'-N9	5.54	112.63	108.20
35	E	475	A	C4-C5-C6	5.54	119.77	117.00
35	E	562	A	C5-C6-N6	-5.54	119.27	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	799	A	C4-C5-C6	5.54	119.77	117.00
35	E	1241	A	O4'-C1'-N9	5.54	112.63	108.20
35	E	1353	A	C5-C6-N6	-5.54	119.27	123.70
35	E	1749	G	O4'-C1'-N9	5.54	112.63	108.20
35	E	1822	A	C5-C6-N6	-5.54	119.27	123.70
35	E	1996	A	C5-C6-N1	-5.54	114.93	117.70
35	E	2000	C	N3-C4-N4	5.54	121.88	118.00
35	E	2007	A	C4-C5-C6	5.54	119.77	117.00
35	E	2031	A	C5-C6-N6	-5.54	119.27	123.70
35	E	2076	A	C5-C6-N6	-5.54	119.27	123.70
35	E	914	C	N3-C4-C5	-5.53	119.69	121.90
35	E	968	U	O4'-C1'-N1	5.53	112.63	108.20
35	E	1975	A	C5-C6-N6	-5.53	119.27	123.70
35	E	246	A	O4'-C1'-N9	5.53	112.62	108.20
35	E	280	C	N3-C4-C5	-5.53	119.69	121.90
35	E	363	A	C5-C6-N1	-5.53	114.94	117.70
35	E	1818	A	C5-C6-N6	-5.53	119.28	123.70
35	E	1992	A	C5-C6-N6	-5.53	119.28	123.70
35	E	2126	A	C5-C6-N1	-5.53	114.94	117.70
35	E	580	C	N3-C4-N4	5.53	121.87	118.00
35	E	832	G	O4'-C1'-N9	5.53	112.62	108.20
35	E	1695	A	C5-C6-N6	-5.53	119.28	123.70
35	E	2088	A	O4'-C1'-N9	5.53	112.62	108.20
35	E	1600	A	O4'-C1'-N9	5.53	112.62	108.20
35	E	1620	A	C5-C6-N1	-5.53	114.94	117.70
35	E	1863	C	N3-C4-N4	5.53	121.87	118.00
35	E	2168	C	N3-C4-N4	5.53	121.87	118.00
35	E	2300	A	C5-C6-N1	-5.53	114.94	117.70
35	E	183	C	N3-C4-N4	5.53	121.87	118.00
35	E	1624	C	N3-C4-C5	-5.53	119.69	121.90
35	E	2037	A	C5-C6-N6	-5.53	119.28	123.70
35	E	2267	A	C5-C6-N1	-5.53	114.94	117.70
35	E	627	C	N3-C4-N4	5.52	121.87	118.00
35	E	644	C	N3-C4-C5	-5.52	119.69	121.90
35	E	1270	A	C5-C6-N6	-5.52	119.28	123.70
35	E	1374	A	C5-C6-N1	-5.52	114.94	117.70
35	E	1791	C	N3-C4-C5	-5.52	119.69	121.90
35	E	630	G	O4'-C1'-N9	5.52	112.62	108.20
35	E	674	A	C5-C6-N1	-5.52	114.94	117.70
35	E	1229	C	N3-C4-C5	-5.52	119.69	121.90
35	E	1323	A	O4'-C1'-N9	5.52	112.62	108.20
35	E	2035	A	C5-C6-N6	-5.52	119.28	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2098	C	O4'-C1'-N1	5.52	112.62	108.20
35	E	277	U	O4'-C1'-N1	5.52	112.62	108.20
35	E	833	A	C5-C6-N6	-5.52	119.28	123.70
35	E	1275	A	C5-C6-N1	-5.52	114.94	117.70
35	E	1628	A	C5-C6-N1	-5.52	114.94	117.70
35	E	40	A	O4'-C1'-N9	5.52	112.61	108.20
35	E	122	A	C5-C6-N6	-5.52	119.29	123.70
35	E	270	C	N3-C4-N4	5.52	121.86	118.00
35	E	464	C	N3-C4-C5	-5.52	119.69	121.90
35	E	1605	A	C4-C5-C6	5.52	119.76	117.00
35	E	418	G	O4'-C1'-N9	5.52	112.61	108.20
35	E	369	C	N3-C4-C5	-5.51	119.69	121.90
35	E	607	A	C5-C6-N6	-5.51	119.29	123.70
35	E	2037	A	C5-C6-N1	-5.51	114.94	117.70
35	E	1688	C	N3-C4-C5	-5.51	119.69	121.90
35	E	2315	A	O4'-C1'-N9	5.51	112.61	108.20
35	E	728	A	C5-C6-N1	-5.51	114.94	117.70
35	E	786	A	C5-C6-N6	-5.51	119.29	123.70
35	E	1189	A	C5-C6-N6	-5.51	119.29	123.70
35	E	1297	C	N3-C4-N4	5.51	121.86	118.00
35	E	1978	C	N3-C4-N4	5.51	121.86	118.00
35	E	2056	A	O4'-C1'-N9	5.51	112.61	108.20
35	E	106	G	O4'-C1'-N9	5.51	112.61	108.20
35	E	637	C	N3-C4-C5	-5.51	119.70	121.90
35	E	1249	G	N3-C2-N2	5.51	123.75	119.90
35	E	135	C	N3-C4-N4	5.51	121.86	118.00
35	E	300	A	O4'-C1'-N9	5.51	112.61	108.20
35	E	655	A	O4'-C1'-N9	5.51	112.61	108.20
35	E	1851	C	N3-C4-N4	5.51	121.86	118.00
35	E	1977	G	O4'-C1'-N9	5.51	112.61	108.20
35	E	2026	A	C5-C6-N1	-5.51	114.95	117.70
35	E	2136	A	C5-C6-N1	-5.51	114.95	117.70
35	E	255	A	O4'-C1'-N9	5.50	112.60	108.20
35	E	1702	A	C5-C6-N1	-5.50	114.95	117.70
35	E	438	A	O4'-C1'-N9	5.50	112.60	108.20
35	E	961	A	C5-C6-N6	-5.50	119.30	123.70
35	E	1313	A	C5-C6-N6	-5.50	119.30	123.70
35	E	1667	G	O4'-C1'-N9	5.50	112.60	108.20
35	E	1959	C	N3-C4-N4	5.50	121.85	118.00
35	E	38	C	N3-C4-C5	-5.50	119.70	121.90
35	E	120	C	N3-C4-N4	5.50	121.85	118.00
35	E	250	A	C5-C6-N6	-5.50	119.30	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	270	C	N3-C4-C5	-5.50	119.70	121.90
35	E	870	U	O4'-C1'-N1	5.50	112.60	108.20
35	E	993	A	C5-C6-N6	-5.50	119.30	123.70
35	E	1353	A	C5-C6-N1	-5.50	114.95	117.70
35	E	1548	C	N3-C4-C5	-5.50	119.70	121.90
35	E	2033	C	N3-C4-N4	5.50	121.85	118.00
35	E	806	C	N3-C4-N4	5.50	121.85	118.00
35	E	1328	A	C5-C6-N6	-5.50	119.30	123.70
35	E	197	C	N3-C4-N4	5.50	121.85	118.00
35	E	846	U	O4'-C1'-N1	5.50	112.60	108.20
35	E	1265	A	C5-C6-N1	-5.50	114.95	117.70
35	E	1286	A	C4-C5-C6	5.50	119.75	117.00
35	E	2049	C	N3-C4-N4	5.50	121.85	118.00
35	E	345	A	O4'-C1'-N9	5.50	112.60	108.20
35	E	685	G	O4'-C1'-N9	5.50	112.60	108.20
35	E	841	C	N3-C4-N4	5.50	121.85	118.00
35	E	132	G	O4'-C1'-N9	5.50	112.60	108.20
35	E	133	G	O4'-C1'-N9	5.50	112.60	108.20
35	E	387	C	N3-C4-C5	-5.50	119.70	121.90
35	E	984	A	C5-C6-N1	-5.50	114.95	117.70
35	E	1681	A	O4'-C1'-N9	5.50	112.60	108.20
35	E	184	A	C5-C6-N1	-5.49	114.95	117.70
35	E	233	G	O4'-C1'-N9	5.49	112.59	108.20
35	E	749	C	N3-C4-N4	5.49	121.85	118.00
35	E	1671	A	C4-C5-C6	5.49	119.75	117.00
35	E	1920	A	C5-C6-N6	-5.49	119.31	123.70
35	E	2105	C	N3-C4-C5	-5.49	119.70	121.90
35	E	1937	A	C5-C6-N6	-5.49	119.31	123.70
35	E	769	A	C5-C6-N6	-5.49	119.31	123.70
35	E	1887	U	C5'-C4'-C3'	-5.49	107.22	116.00
35	E	102	A	C5-C6-N1	-5.49	114.96	117.70
35	E	123	A	C5-C6-N1	-5.49	114.96	117.70
35	E	163	C	N3-C4-N4	5.49	121.84	118.00
35	E	351	A	O4'-C1'-N9	5.49	112.59	108.20
35	E	734	G	N1-C2-N2	5.49	121.14	116.20
35	E	1217	A	C5-C6-N1	-5.49	114.96	117.70
35	E	258	C	N3-C4-N4	5.49	121.84	118.00
35	E	703	A	C5-C6-N6	-5.49	119.31	123.70
35	E	780	C	N3-C4-N4	5.49	121.84	118.00
35	E	1309	A	O4'-C1'-N9	5.49	112.59	108.20
35	E	2133	C	N3-C4-C5	-5.49	119.70	121.90
35	E	62	A	C5-C6-N1	-5.49	114.96	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	621	A	C5-C6-N6	-5.49	119.31	123.70
35	E	1566	A	C5-C6-N6	-5.49	119.31	123.70
35	E	1738	G	O4'-C1'-N9	5.49	112.59	108.20
35	E	1866	A	C4-C5-C6	5.49	119.74	117.00
35	E	1906	C	N3-C4-C5	-5.49	119.71	121.90
35	E	2060	C	N3-C4-C5	-5.49	119.70	121.90
35	E	2262	A	C5-C6-N6	-5.49	119.31	123.70
35	E	254	A	C5-C6-N1	-5.48	114.96	117.70
35	E	2176	G	O4'-C1'-N9	5.48	112.59	108.20
35	E	787	C	N3-C4-C5	-5.48	119.71	121.90
35	E	890	C	N3-C4-N4	5.48	121.84	118.00
35	E	917	A	C5-C6-N6	-5.48	119.31	123.70
35	E	1348	A	C5-C6-N1	-5.48	114.96	117.70
35	E	2159	A	C5-C6-N6	-5.48	119.31	123.70
35	E	526	A	O4'-C1'-N9	5.48	112.58	108.20
35	E	935	A	C5-C6-N6	-5.48	119.31	123.70
35	E	595	A	C5-C6-N1	-5.48	114.96	117.70
35	E	2248	G	O4'-C1'-N9	5.48	112.58	108.20
35	E	97	A	C5-C6-N6	-5.48	119.32	123.70
35	E	403	G	O4'-C1'-N9	5.48	112.58	108.20
35	E	673	A	C5-C6-N6	-5.48	119.32	123.70
35	E	732	C	C6-N1-C1'	-5.48	114.23	120.80
35	E	2283	A	C5-C6-N1	-5.48	114.96	117.70
35	E	2299	A	C5-C6-N1	-5.48	114.96	117.70
35	E	425	A	O4'-C1'-N9	5.48	112.58	108.20
35	E	181	A	C5-C6-N6	-5.47	119.32	123.70
35	E	585	A	C5-C6-N6	-5.47	119.32	123.70
35	E	2225	C	N3-C4-N4	5.47	121.83	118.00
3	r	121	TYR	CB-CG-CD2	-5.47	117.72	121.00
35	E	184	A	C5-C6-N6	-5.47	119.32	123.70
35	E	185	A	C5-C6-N6	-5.47	119.32	123.70
35	E	428	C	N3-C4-C5	-5.47	119.71	121.90
35	E	482	C	N3-C4-N4	5.47	121.83	118.00
35	E	269	A	C5-C6-N6	-5.47	119.32	123.70
35	E	859	C	N3-C4-N4	5.47	121.83	118.00
35	E	1599	A	C5-C6-N1	-5.47	114.97	117.70
35	E	1996	A	C5-C6-N6	-5.47	119.32	123.70
35	E	97	A	C5-C6-N1	-5.47	114.97	117.70
35	E	853	C	N3-C4-C5	-5.47	119.71	121.90
35	E	1934	G	O4'-C1'-N9	5.47	112.58	108.20
35	E	2163	G	O4'-C1'-N9	5.47	112.58	108.20
35	E	181	A	C5-C6-N1	-5.47	114.97	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	604	A	C5-C6-N1	-5.47	114.97	117.70
35	E	1255	A	C5-C6-N1	-5.47	114.97	117.70
35	E	2260	A	C5-C6-N6	-5.47	119.33	123.70
35	E	2284	A	C5-C6-N6	-5.47	119.33	123.70
35	E	619	C	N3-C4-C5	-5.46	119.71	121.90
35	E	673	A	C4-C5-C6	5.46	119.73	117.00
35	E	506	A	C5-C6-N1	-5.46	114.97	117.70
35	E	805	C	N3-C4-C5	-5.46	119.72	121.90
35	E	723	C	N3-C4-C5	-5.46	119.72	121.90
35	E	1286	A	C5-C6-N6	-5.46	119.33	123.70
35	E	7	G	O4'-C1'-N9	5.46	112.57	108.20
35	E	55	A	C5-C6-N6	-5.46	119.33	123.70
35	E	141	A	C5-C6-N6	-5.46	119.33	123.70
35	E	482	C	N3-C4-C5	-5.46	119.72	121.90
35	E	709	C	N3-C4-C5	-5.46	119.72	121.90
35	E	1584	A	C5-C6-N6	-5.46	119.33	123.70
35	E	1609	A	C5-C6-N1	-5.46	114.97	117.70
35	E	1961	A	C5-C6-N6	-5.46	119.33	123.70
35	E	345	A	C5-C6-N1	-5.46	114.97	117.70
35	E	502	A	C5-C6-N6	-5.46	119.33	123.70
35	E	769	A	C5-C6-N1	-5.46	114.97	117.70
35	E	930	G	O4'-C1'-N9	5.46	112.57	108.20
35	E	1561	A	C5-C6-N6	-5.46	119.33	123.70
35	E	1824	A	C5-C6-N1	-5.46	114.97	117.70
35	E	2251	A	O4'-C1'-N9	5.46	112.56	108.20
5	u	43	TYR	CB-CG-CD1	5.46	124.27	121.00
35	E	173	A	C5-C6-N1	-5.46	114.97	117.70
35	E	806	C	N3-C4-C5	-5.46	119.72	121.90
35	E	816	C	N3-C4-C5	-5.46	119.72	121.90
35	E	1578	G	O4'-C1'-N9	5.46	112.56	108.20
35	E	1710	A	C5-C6-N6	-5.46	119.34	123.70
35	E	2014	C	N3-C4-C5	-5.45	119.72	121.90
35	E	812	A	C5-C6-N6	-5.45	119.34	123.70
35	E	2055	A	C5-C6-N1	-5.45	114.97	117.70
35	E	330	A	C5-C6-N6	-5.45	119.34	123.70
35	E	493	A	C4-C5-C6	5.45	119.73	117.00
35	E	841	C	N3-C4-C5	-5.45	119.72	121.90
35	E	1180	A	C5-C6-N1	-5.45	114.97	117.70
35	E	1920	A	C5-C6-N1	-5.45	114.97	117.70
35	E	2199	A	O4'-C1'-N9	5.45	112.56	108.20
35	E	170	C	N3-C4-C5	-5.45	119.72	121.90
35	E	1189	A	C5-C6-N1	-5.45	114.98	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1664	A	O4'-C1'-N9	5.45	112.56	108.20
35	E	2008	A	C5-C6-N6	-5.45	119.34	123.70
35	E	2272	A	C5-C6-N1	-5.45	114.98	117.70
35	E	503	A	C5-C6-N1	-5.45	114.98	117.70
35	E	168	A	C5-C6-N1	-5.45	114.98	117.70
35	E	300	A	C5-C6-N6	-5.45	119.34	123.70
35	E	917	A	C5-C6-N1	-5.45	114.98	117.70
35	E	1683	C	N3-C4-N4	5.45	121.81	118.00
35	E	2126	A	O4'-C1'-N9	5.45	112.56	108.20
35	E	2167	A	C5-C6-N1	-5.45	114.98	117.70
35	E	502	A	C5-C6-N1	-5.44	114.98	117.70
35	E	644	C	N3-C4-N4	5.44	121.81	118.00
35	E	1661	A	C5-C6-N1	-5.44	114.98	117.70
35	E	2009	C	O4'-C1'-N1	5.44	112.56	108.20
35	E	6	G	O4'-C1'-N9	5.44	112.55	108.20
35	E	61	C	N3-C4-C5	-5.44	119.72	121.90
35	E	578	C	N3-C4-C5	-5.44	119.72	121.90
35	E	688	G	O4'-C1'-N9	5.44	112.55	108.20
35	E	710	A	C5-C6-N1	-5.44	114.98	117.70
35	E	1826	U	O4'-C1'-N1	5.44	112.55	108.20
35	E	1960	A	C5-C6-N1	-5.44	114.98	117.70
35	E	2052	C	P-O3'-C3'	5.44	126.23	119.70
35	E	587	A	C5-C6-N1	-5.44	114.98	117.70
35	E	1330	A	C5-C6-N6	-5.44	119.35	123.70
35	E	2005	A	O4'-C1'-N9	5.44	112.55	108.20
35	E	3	U	O4'-C1'-N1	5.44	112.55	108.20
35	E	51	A	C5-C6-N6	-5.44	119.35	123.70
35	E	97	A	O4'-C1'-N9	5.44	112.55	108.20
35	E	330	A	C1'-O4'-C4'	-5.44	105.55	109.90
35	E	117	C	N3-C4-N4	5.44	121.81	118.00
35	E	120	C	N3-C4-C5	-5.44	119.72	121.90
35	E	592	A	C5-C6-N6	-5.44	119.35	123.70
35	E	694	A	C5-C6-N1	-5.44	114.98	117.70
35	E	858	A	C5-C6-N6	-5.44	119.35	123.70
35	E	1806	C	N3-C4-N4	5.44	121.81	118.00
35	E	1851	C	N3-C4-C5	-5.44	119.72	121.90
35	E	304	A	C5-C6-N1	-5.44	114.98	117.70
35	E	391	C	N3-C4-N4	5.44	121.81	118.00
35	E	2171	C	N3-C4-N4	5.44	121.81	118.00
35	E	483	A	C5-C6-N1	-5.43	114.98	117.70
35	E	766	C	N3-C4-C5	-5.43	119.73	121.90
35	E	825	C	N3-C4-N4	5.43	121.81	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1596	G	O4'-C1'-N9	5.43	112.55	108.20
35	E	2080	A	O4'-C1'-N9	5.43	112.55	108.20
35	E	86	G	O4'-C1'-N9	5.43	112.55	108.20
35	E	190	A	C5-C6-N1	-5.43	114.98	117.70
35	E	457	A	C5-C6-N1	-5.43	114.98	117.70
35	E	799	A	C5-C6-N1	-5.43	114.98	117.70
35	E	1259	A	O4'-C1'-N9	5.43	112.55	108.20
35	E	2040	G	O4'-C1'-N9	5.43	112.55	108.20
35	E	562	A	C5-C6-N1	-5.43	114.98	117.70
35	E	81	A	C5-C6-N6	-5.43	119.36	123.70
35	E	694	A	C5-C6-N6	-5.43	119.36	123.70
35	E	2315	A	C5-C6-N1	-5.43	114.98	117.70
35	E	195	C	P-O3'-C3'	5.43	126.21	119.70
35	E	765	A	C5-C6-N6	-5.43	119.36	123.70
35	E	1657	A	C5-C6-N1	-5.43	114.99	117.70
35	E	2027	C	N3-C4-N4	5.43	121.80	118.00
35	E	480	C	N3-C4-C5	-5.43	119.73	121.90
35	E	527	A	C5-C6-N6	-5.43	119.36	123.70
35	E	1883	C	N3-C4-C5	-5.43	119.73	121.90
35	E	2030	G	O4'-C1'-N9	5.43	112.54	108.20
35	E	177	A	O4'-C1'-N9	5.42	112.54	108.20
35	E	187	C	N3-C4-C5	-5.42	119.73	121.90
35	E	900	A	C5-C6-N6	-5.42	119.36	123.70
35	E	1579	G	O4'-C1'-N9	5.42	112.54	108.20
35	E	1644	G	O4'-C1'-N9	5.42	112.54	108.20
35	E	1792	G	O4'-C1'-N9	5.42	112.54	108.20
35	E	1265	A	O4'-C1'-N9	5.42	112.54	108.20
35	E	564	G	O4'-C1'-N9	5.42	112.54	108.20
35	E	566	G	O4'-C1'-N9	5.42	112.54	108.20
35	E	2019	C	N3-C4-C5	-5.42	119.73	121.90
35	E	2111	A	C5-C6-N1	-5.42	114.99	117.70
35	E	504	A	C5-C6-N1	-5.42	114.99	117.70
35	E	829	C	N3-C4-N4	5.42	121.79	118.00
35	E	942	C	N3-C4-C5	-5.42	119.73	121.90
35	E	2008	A	C5-C6-N1	-5.42	114.99	117.70
35	E	2055	A	C5-C6-N6	-5.42	119.36	123.70
35	E	203	C	N3-C4-C5	-5.42	119.73	121.90
35	E	743	C	N3-C4-N4	5.42	121.79	118.00
35	E	1196	A	C4-C5-C6	5.42	119.71	117.00
35	E	1298	C	N3-C4-C5	-5.42	119.73	121.90
35	E	1531	G	O4'-C1'-N9	5.42	112.53	108.20
35	E	2186	C	N3-C4-C5	-5.42	119.73	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	38	C	N3-C4-N4	5.42	121.79	118.00
35	E	89	C	N3-C4-N4	5.42	121.79	118.00
35	E	607	A	C5-C6-N1	-5.42	114.99	117.70
35	E	1197	A	C5-C6-N1	-5.42	114.99	117.70
35	E	1660	C	N3-C4-N4	5.42	121.79	118.00
35	E	1907	C	N3-C4-C5	-5.42	119.73	121.90
35	E	675	A	C5-C6-N6	-5.42	119.37	123.70
35	E	1378	A	C5-C6-N6	-5.42	119.37	123.70
35	E	1686	G	P-O5'-C5'	-5.42	112.24	120.90
35	E	2068	C	N3-C4-C5	-5.42	119.73	121.90
35	E	19	A	C5-C6-N6	-5.41	119.37	123.70
35	E	141	A	C4-C5-C6	5.41	119.71	117.00
35	E	175	A	C5-C6-N1	-5.41	114.99	117.70
35	E	1197	A	C5-C6-N6	-5.41	119.37	123.70
35	E	1857	U	O4'-C1'-N1	5.41	112.53	108.20
35	E	1984	A	C5-C6-N6	-5.41	119.37	123.70
35	E	2034	A	C5-C6-N6	-5.41	119.37	123.70
35	E	2147	U	C6-N1-C1'	-5.41	113.62	121.20
35	E	386	A	C5-C6-N6	-5.41	119.37	123.70
35	E	689	A	C5-C6-N6	-5.41	119.37	123.70
35	E	1803	A	C5-C6-N6	-5.41	119.37	123.70
35	E	1610	A	C5-C6-N6	-5.41	119.37	123.70
35	E	1742	C	N3-C4-C5	-5.41	119.74	121.90
35	E	1850	C	N3-C4-C5	-5.41	119.74	121.90
35	E	90	A	C5-C6-N1	-5.41	115.00	117.70
35	E	450	A	C5-C6-N1	-5.41	115.00	117.70
35	E	1177	C	N3-C4-C5	-5.41	119.74	121.90
35	E	367	A	C5-C6-N6	-5.41	119.38	123.70
35	E	585	A	C5-C6-N1	-5.41	115.00	117.70
35	E	641	C	N3-C4-C5	-5.41	119.74	121.90
35	E	945	C	N3-C4-C5	-5.41	119.74	121.90
35	E	1689	A	C5-C6-N6	-5.41	119.38	123.70
35	E	2065	A	C5-C6-N6	-5.41	119.38	123.70
35	E	2067	C	N3-C4-C5	-5.41	119.74	121.90
35	E	2259	A	C5-C6-N1	-5.41	115.00	117.70
35	E	1292	A	C5-C6-N1	-5.40	115.00	117.70
35	E	1340	A	C5-C6-N6	-5.40	119.38	123.70
35	E	1729	C	N3-C4-N4	5.40	121.78	118.00
35	E	182	C	N3-C4-C5	-5.40	119.74	121.90
35	E	254	A	C5-C6-N6	-5.40	119.38	123.70
35	E	499	A	C5-C6-N1	-5.40	115.00	117.70
35	E	707	C	N3-C4-C5	-5.40	119.74	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1343	A	C5-C6-N6	-5.40	119.38	123.70
35	E	1658	C	N3-C4-C5	-5.40	119.74	121.90
35	E	2315	A	C5-C6-N6	-5.40	119.38	123.70
35	E	241	A	O4'-C1'-N9	5.40	112.52	108.20
35	E	2204	A	O4'-C1'-N9	5.40	112.52	108.20
35	E	51	A	C5-C6-N1	-5.40	115.00	117.70
35	E	214	C	N3-C4-C5	-5.40	119.74	121.90
35	E	101	C	N3-C4-C5	-5.40	119.74	121.90
35	E	444	A	C5-C6-N1	-5.40	115.00	117.70
35	E	586	A	C5-C6-N1	-5.40	115.00	117.70
35	E	966	C	N3-C4-C5	-5.40	119.74	121.90
35	E	1182	G	O4'-C1'-N9	5.40	112.52	108.20
35	E	2092	A	C5-C6-N1	-5.40	115.00	117.70
35	E	2225	C	N3-C4-C5	-5.40	119.74	121.90
35	E	467	A	C5-C6-N6	-5.40	119.38	123.70
35	E	547	G	O4'-C1'-N9	5.40	112.52	108.20
35	E	168	A	O4'-C1'-N9	5.39	112.52	108.20
35	E	177	A	C5-C6-N6	-5.39	119.39	123.70
35	E	245	A	O4'-C1'-N9	5.39	112.52	108.20
35	E	405	G	O4'-C1'-N9	5.39	112.52	108.20
35	E	615	G	O4'-C1'-N9	5.39	112.52	108.20
35	E	1214	G	O4'-C1'-N9	5.39	112.52	108.20
35	E	1264	A	C5-C6-N1	-5.39	115.00	117.70
35	E	1797	A	C5-C6-N1	-5.39	115.00	117.70
35	E	2240	A	C4-C5-C6	5.39	119.70	117.00
35	E	142	A	C5-C6-N1	-5.39	115.00	117.70
35	E	345	A	C5-C6-N6	-5.39	119.39	123.70
35	E	887	C	N3-C4-N4	5.39	121.78	118.00
35	E	960	A	C5-C6-N1	-5.39	115.00	117.70
35	E	1172	C	N3-C4-C5	-5.39	119.74	121.90
35	E	1233	A	C5-C6-N1	-5.39	115.00	117.70
35	E	1338	A	O4'-C1'-N9	5.39	112.51	108.20
35	E	1678	C	N3-C4-C5	-5.39	119.74	121.90
35	E	2052	C	N3-C4-C5	-5.39	119.74	121.90
35	E	2192	A	C5-C6-N6	-5.39	119.39	123.70
35	E	1077	C	N3-C4-N4	5.39	121.77	118.00
35	E	1251	C	N3-C4-C5	-5.39	119.74	121.90
35	E	1536	C	N3-C4-N4	5.39	121.77	118.00
35	E	485	A	C5-C6-N1	-5.39	115.01	117.70
35	E	784	A	C5-C6-N6	-5.39	119.39	123.70
35	E	1790	A	C5-C6-N1	-5.39	115.00	117.70
35	E	360	A	C5-C6-N1	-5.39	115.01	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	894	A	C5-C6-N1	-5.39	115.01	117.70
35	E	1995	G	O4'-C1'-N9	5.39	112.51	108.20
35	E	30	G	O4'-C1'-N9	5.38	112.51	108.20
35	E	962	A	C5-C6-N1	-5.38	115.01	117.70
35	E	990	A	C5-C6-N1	-5.38	115.01	117.70
35	E	1720	C	N3-C4-N4	5.38	121.77	118.00
35	E	350	C	N3-C4-C5	-5.38	119.75	121.90
35	E	976	U	O4'-C1'-N1	5.38	112.51	108.20
35	E	1684	C	N3-C4-N4	5.38	121.77	118.00
35	E	2099	G	C5-C6-O6	-5.38	125.37	128.60
35	E	2200	A	C5-C6-N1	-5.38	115.01	117.70
35	E	22	A	C5-C6-N1	-5.38	115.01	117.70
35	E	926	C	N3-C4-C5	-5.38	119.75	121.90
35	E	1174	C	N3-C4-C5	-5.38	119.75	121.90
35	E	1576	G	C5-C6-O6	-5.38	125.37	128.60
35	E	2239	A	C5-C6-N1	-5.38	115.01	117.70
35	E	160	A	C4-C5-C6	5.38	119.69	117.00
35	E	330	A	C5-C6-N1	-5.38	115.01	117.70
35	E	555	G	O4'-C1'-N9	5.38	112.50	108.20
35	E	127	C	N3-C4-C5	-5.38	119.75	121.90
35	E	373	G	O4'-C1'-N9	5.38	112.50	108.20
35	E	936	C	C6-N1-C2	-5.38	118.15	120.30
35	E	2158	C	N3-C4-N4	5.38	121.77	118.00
35	E	309	G	O4'-C1'-N9	5.38	112.50	108.20
35	E	1606	A	C4-C5-C6	5.38	119.69	117.00
35	E	125	A	C5-C6-N1	-5.38	115.01	117.70
35	E	2312	A	C5-C6-N1	-5.38	115.01	117.70
35	E	158	C	N3-C4-C5	-5.37	119.75	121.90
35	E	704	A	O4'-C1'-N9	5.37	112.50	108.20
35	E	1173	U	O4'-C1'-N1	5.37	112.50	108.20
35	E	1288	G	O4'-C1'-N9	5.37	112.50	108.20
35	E	2089	A	C5-C6-N6	-5.37	119.40	123.70
35	E	125	A	C5-C6-N6	-5.37	119.40	123.70
35	E	244	G	O4'-C1'-N9	5.37	112.50	108.20
35	E	259	C	O4'-C1'-N1	5.37	112.50	108.20
35	E	449	U	O4'-C1'-N1	5.37	112.50	108.20
35	E	633	A	C5-C6-N1	-5.37	115.01	117.70
35	E	859	C	N3-C4-C5	-5.37	119.75	121.90
35	E	864	A	C5-C6-N1	-5.37	115.01	117.70
35	E	1803	A	C5-C6-N1	-5.37	115.02	117.70
35	E	2107	A	C5-C6-N6	-5.37	119.40	123.70
35	E	2197	G	O4'-C1'-N9	5.37	112.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	855	G	O4'-C1'-N9	5.37	112.50	108.20
35	E	916	A	C5-C6-N1	-5.37	115.02	117.70
35	E	1372	C	N3-C4-C5	-5.37	119.75	121.90
35	E	784	A	C5-C6-N1	-5.37	115.02	117.70
35	E	960	A	O4'-C1'-N9	5.37	112.50	108.20
35	E	1239	G	O4'-C1'-N9	5.37	112.49	108.20
35	E	1991	C	N3-C4-C5	-5.37	119.75	121.90
35	E	121	A	C5-C6-N1	-5.37	115.02	117.70
35	E	1176	A	C5-C6-N1	-5.37	115.02	117.70
35	E	1724	A	C5-C6-N6	-5.37	119.41	123.70
35	E	258	C	N3-C4-C5	-5.37	119.75	121.90
35	E	432	A	C5-C6-N6	-5.37	119.41	123.70
35	E	1662	A	C5-C6-N1	-5.37	115.02	117.70
34	h	218	SER	N-CA-CB	5.36	118.54	110.50
35	E	28	A	C5-C6-N1	-5.36	115.02	117.70
35	E	107	A	C5-C6-N1	-5.36	115.02	117.70
35	E	608	C	N3-C4-C5	-5.36	119.75	121.90
35	E	653	A	O4'-C1'-N9	5.36	112.49	108.20
35	E	726	C	N3-C4-N4	5.36	121.75	118.00
35	E	1861	A	C5-C6-N1	-5.36	115.02	117.70
35	E	2026	A	O4'-C1'-N9	5.36	112.49	108.20
35	E	2033	C	N3-C4-C5	-5.36	119.75	121.90
35	E	11	A	C5-C6-N6	-5.36	119.41	123.70
35	E	571	A	C5-C6-N6	-5.36	119.41	123.70
35	E	1274	A	O4'-C1'-N9	5.36	112.49	108.20
35	E	245	A	C5-C6-N6	-5.36	119.41	123.70
35	E	284	C	N3-C4-C5	-5.36	119.76	121.90
35	E	624	A	O4'-C1'-N9	5.36	112.49	108.20
35	E	1697	G	O4'-C1'-N9	5.36	112.49	108.20
35	E	2148	A	C5-C6-N1	-5.36	115.02	117.70
35	E	4	C	N3-C4-C5	-5.36	119.76	121.90
35	E	246	A	C5-C6-N6	-5.36	119.41	123.70
35	E	682	G	N3-C2-N2	5.36	123.65	119.90
35	E	1313	A	C5-C6-N1	-5.36	115.02	117.70
35	E	1592	A	C5-C6-N6	-5.36	119.41	123.70
35	E	2097	U	O4'-C1'-N1	5.36	112.49	108.20
35	E	638	C	N3-C4-C5	-5.36	119.76	121.90
35	E	814	C	N3-C4-C5	-5.36	119.76	121.90
35	E	998	C	N3-C4-N4	5.36	121.75	118.00
35	E	1304	C	N3-C4-C5	-5.36	119.76	121.90
35	E	1658	C	O4'-C1'-N1	5.36	112.48	108.20
35	E	2056	A	C5-C6-N1	-5.36	115.02	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	260	A	C4-C5-C6	5.35	119.68	117.00
35	E	673	A	C5-C6-N1	-5.35	115.02	117.70
35	E	742	A	C5-C6-N6	-5.35	119.42	123.70
35	E	1365	A	C5-C6-N6	-5.35	119.42	123.70
3	r	135	TRP	CA-C-N	5.35	126.90	116.20
20	f	206	PHE	CB-CG-CD1	5.35	124.55	120.80
35	E	82	A	C5-C6-N1	-5.35	115.02	117.70
35	E	92	G	O4'-C1'-N9	5.35	112.48	108.20
35	E	397	G	O4'-C1'-N9	5.35	112.48	108.20
35	E	854	U	O4'-C1'-N1	5.35	112.48	108.20
35	E	1975	A	C5-C6-N1	-5.35	115.02	117.70
35	E	59	C	N3-C4-C5	-5.35	119.76	121.90
35	E	183	C	N3-C4-C5	-5.35	119.76	121.90
35	E	2102	C	N3-C4-C5	-5.35	119.76	121.90
35	E	250	A	C5-C6-N1	-5.35	115.03	117.70
35	E	404	G	O4'-C1'-N9	5.35	112.48	108.20
35	E	689	A	C5-C6-N1	-5.35	115.03	117.70
35	E	727	C	N3-C4-C5	-5.35	119.76	121.90
35	E	1314	A	C5-C6-N1	-5.35	115.03	117.70
35	E	2202	A	C5-C6-N1	-5.35	115.03	117.70
35	E	108	C	N3-C4-N4	5.35	121.74	118.00
35	E	179	G	O4'-C1'-N9	5.35	112.48	108.20
35	E	220	G	O4'-C1'-N9	5.35	112.48	108.20
35	E	285	A	C5-C6-N6	-5.35	119.42	123.70
35	E	509	A	C5-C6-N1	-5.35	115.03	117.70
35	E	830	C	N3-C4-C5	-5.35	119.76	121.90
35	E	875	A	C5-C6-N1	-5.35	115.03	117.70
35	E	1546	C	N3-C4-N4	5.35	121.74	118.00
35	E	1627	C	N3-C4-C5	-5.35	119.76	121.90
35	E	889	A	O4'-C1'-N9	5.35	112.48	108.20
35	E	1360	A	C5-C6-N1	-5.35	115.03	117.70
35	E	1999	A	C5-C6-N1	-5.35	115.03	117.70
35	E	463	A	C5-C6-N6	-5.34	119.42	123.70
35	E	484	A	C5-C6-N1	-5.34	115.03	117.70
35	E	812	A	C5-C6-N1	-5.34	115.03	117.70
35	E	1205	A	C5-C6-N1	-5.34	115.03	117.70
35	E	1322	G	O4'-C1'-N9	5.34	112.48	108.20
35	E	1706	A	C5-C6-N6	-5.34	119.42	123.70
35	E	1731	G	O4'-C1'-N9	5.34	112.47	108.20
35	E	25	C	N3-C4-C5	-5.34	119.76	121.90
35	E	417	A	C5-C6-N1	-5.34	115.03	117.70
35	E	1525	C	N3-C4-C5	-5.34	119.76	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1546	C	N3-C4-C5	-5.34	119.76	121.90
35	E	1631	A	C5-C6-N1	-5.34	115.03	117.70
35	E	1678	C	N3-C4-N4	5.34	121.74	118.00
35	E	1766	U	O4'-C1'-N1	5.34	112.47	108.20
35	E	783	A	C5-C6-N1	-5.34	115.03	117.70
35	E	1377	A	C5-C6-N6	-5.34	119.43	123.70
35	E	2239	A	C5-C6-N6	-5.34	119.43	123.70
35	E	2308	C	N3-C4-C5	-5.34	119.76	121.90
35	E	108	C	N3-C4-C5	-5.34	119.77	121.90
35	E	260	A	C6-C5-N7	-5.34	128.56	132.30
35	E	315	A	C4-C5-C6	5.34	119.67	117.00
35	E	530	G	O4'-C1'-N9	5.34	112.47	108.20
35	E	1338	A	C5-C6-N1	-5.34	115.03	117.70
35	E	1794	A	C5-C6-N1	-5.34	115.03	117.70
35	E	998	C	N3-C4-C5	-5.34	119.77	121.90
35	E	1832	A	C5-C6-N1	-5.34	115.03	117.70
35	E	444	A	O4'-C1'-N9	5.34	112.47	108.20
35	E	632	U	O4'-C1'-N1	5.34	112.47	108.20
35	E	643	C	N3-C4-C5	-5.34	119.77	121.90
35	E	1552	A	O4'-C1'-N9	5.34	112.47	108.20
35	E	1743	A	O4'-C1'-N9	5.34	112.47	108.20
35	E	2035	A	C5-C6-N1	-5.34	115.03	117.70
35	E	529	A	C5-C6-N6	-5.33	119.43	123.70
35	E	974	A	C5-C6-N1	-5.33	115.03	117.70
35	E	1302	A	C5-C6-N1	-5.33	115.03	117.70
35	E	1620	A	C5-C6-N6	-5.33	119.43	123.70
35	E	1919	A	C5-C6-N6	-5.33	119.43	123.70
35	E	2156	G	O4'-C1'-N9	5.33	112.47	108.20
21	d	223	TYR	CB-CG-CD2	-5.33	117.80	121.00
35	E	40	A	C5-C6-N1	-5.33	115.03	117.70
35	E	1223	C	N3-C4-C5	-5.33	119.77	121.90
35	E	1325	C	N3-C4-C5	-5.33	119.77	121.90
35	E	2110	A	C5-C6-N6	-5.33	119.43	123.70
35	E	2312	A	C5-C6-N6	-5.33	119.44	123.70
35	E	116	G	O4'-C1'-N9	5.33	112.46	108.20
35	E	269	A	C5-C6-N1	-5.33	115.03	117.70
35	E	316	A	C5-C6-N1	-5.33	115.03	117.70
35	E	659	A	C5-C6-N1	-5.33	115.03	117.70
35	E	690	A	C5-C6-N6	-5.33	119.44	123.70
35	E	11	A	O4'-C1'-N9	5.33	112.46	108.20
35	E	2066	C	N3-C4-N4	5.33	121.73	118.00
35	E	2238	A	C5-C6-N6	-5.33	119.44	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	135	C	N3-C4-C5	-5.33	119.77	121.90
35	E	779	A	O4'-C1'-N9	5.33	112.46	108.20
35	E	1329	G	O4'-C1'-N9	5.33	112.46	108.20
35	E	509	A	O4'-C1'-N9	5.32	112.46	108.20
35	E	1352	C	N3-C4-C5	-5.32	119.77	121.90
35	E	1630	A	C5-C6-N6	-5.32	119.44	123.70
35	E	2203	C	N3-C4-N4	5.32	121.73	118.00
35	E	429	C	N3-C4-C5	-5.32	119.77	121.90
35	E	1861	A	O4'-C1'-N9	5.32	112.46	108.20
35	E	610	A	C5-C6-N6	-5.32	119.44	123.70
35	E	760	C	O4'-C1'-N1	5.32	112.46	108.20
35	E	809	A	C5-C6-N1	-5.32	115.04	117.70
35	E	1323	A	C5-C6-N6	-5.32	119.44	123.70
35	E	1938	C	N3-C4-C5	-5.32	119.77	121.90
35	E	2168	C	N3-C4-C5	-5.32	119.77	121.90
35	E	2214	A	O4'-C1'-N9	5.32	112.46	108.20
35	E	351	A	C5-C6-N6	-5.32	119.44	123.70
35	E	770	C	N3-C4-C5	-5.32	119.77	121.90
35	E	959	A	C5-C6-N6	-5.32	119.44	123.70
35	E	1963	G	O4'-C1'-N9	5.32	112.45	108.20
35	E	89	C	N3-C4-C5	-5.32	119.77	121.90
35	E	185	A	C5-C6-N1	-5.32	115.04	117.70
35	E	1348	A	C5-C6-N6	-5.32	119.45	123.70
35	E	1348	A	O4'-C1'-N9	5.32	112.45	108.20
35	E	2011	A	C5-C6-N1	-5.32	115.04	117.70
35	E	2305	C	N3-C4-C5	-5.32	119.77	121.90
35	E	46	U	C2-N1-C1'	5.32	124.08	117.70
35	E	84	C	N3-C4-C5	-5.32	119.77	121.90
35	E	241	A	C5-C6-N1	-5.32	115.04	117.70
35	E	278	A	O4'-C1'-N9	5.32	112.45	108.20
35	E	1736	G	O4'-C1'-N9	5.32	112.45	108.20
35	E	102	A	C5-C6-N6	-5.31	119.45	123.70
35	E	440	C	N3-C4-C5	-5.31	119.78	121.90
35	E	662	C	N3-C4-C5	-5.31	119.78	121.90
35	E	979	G	C6-C5-N7	-5.31	127.21	130.40
35	E	2077	C	N3-C4-C5	-5.31	119.77	121.90
35	E	2135	A	C5-C6-N6	-5.31	119.45	123.70
35	E	366	C	N3-C4-N4	5.31	121.72	118.00
35	E	1584	A	O4'-C1'-N9	5.31	112.45	108.20
35	E	1697	G	C4-N9-C1'	5.31	133.41	126.50
35	E	55	A	C5-C6-N1	-5.31	115.05	117.70
35	E	304	A	O4'-C1'-N9	5.31	112.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	580	C	N3-C4-C5	-5.31	119.78	121.90
35	E	1959	C	O4'-C1'-N1	5.31	112.45	108.20
35	E	1677	C	N3-C4-C5	-5.31	119.78	121.90
35	E	1916	C	N3-C4-N4	5.31	121.72	118.00
35	E	80	G	O4'-C1'-N9	5.31	112.44	108.20
35	E	127	C	N3-C4-N4	5.31	121.72	118.00
35	E	581	A	C5-C6-N1	-5.31	115.05	117.70
35	E	1599	A	C5-C6-N6	-5.31	119.45	123.70
35	E	2268	A	C5-C6-N1	-5.31	115.05	117.70
35	E	467	A	O4'-C1'-N9	5.30	112.44	108.20
35	E	597	C	N3-C4-N4	5.30	121.71	118.00
35	E	1936	A	C5-C6-N1	-5.30	115.05	117.70
35	E	1966	C	N3-C4-C5	-5.30	119.78	121.90
35	E	2273	A	C5-C6-N6	-5.30	119.46	123.70
35	E	369	C	N3-C4-N4	5.30	121.71	118.00
35	E	876	A	C5-C6-N1	-5.30	115.05	117.70
35	E	878	G	O4'-C1'-N9	5.30	112.44	108.20
35	E	1619	A	C5-C6-N6	-5.30	119.46	123.70
35	E	1726	C	N3-C4-C5	-5.30	119.78	121.90
35	E	212	G	O4'-C1'-N9	5.30	112.44	108.20
35	E	351	A	C5-C6-N1	-5.30	115.05	117.70
35	E	153	C	N3-C4-C5	-5.30	119.78	121.90
35	E	203	C	N3-C4-N4	5.30	121.71	118.00
35	E	288	A	C5-C6-N6	-5.30	119.46	123.70
35	E	961	A	C5-C6-N1	-5.30	115.05	117.70
35	E	1728	C	N3-C4-C5	-5.30	119.78	121.90
35	E	1788	C	N3-C4-C5	-5.30	119.78	121.90
35	E	2142	C	N3-C4-C5	-5.30	119.78	121.90
35	E	55	A	O4'-C1'-N9	5.29	112.44	108.20
35	E	287	A	C5-C6-N1	-5.29	115.05	117.70
35	E	441	C	N3-C4-C5	-5.29	119.78	121.90
35	E	476	G	O4'-C1'-N9	5.29	112.44	108.20
35	E	571	A	O4'-C1'-N9	5.29	112.44	108.20
35	E	1647	G	O4'-C1'-N9	5.29	112.44	108.20
35	E	2215	C	N3-C4-C5	-5.29	119.78	121.90
35	E	352	A	C5-C6-N1	-5.29	115.05	117.70
35	E	425	A	C5-C6-N1	-5.29	115.05	117.70
35	E	521	A	C5-C6-N1	-5.29	115.05	117.70
35	E	898	A	C5-C6-N6	-5.29	119.47	123.70
35	E	1378	A	C5-C6-N1	-5.29	115.05	117.70
35	E	1902	G	N3-C2-N2	5.29	123.60	119.90
35	E	1529	A	C5-C6-N1	-5.29	115.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1620	A	O4'-C1'-N9	5.29	112.43	108.20
35	E	1961	A	C5-C6-N1	-5.29	115.06	117.70
20	f	206	PHE	CB-CG-CD2	-5.29	117.10	120.80
35	E	47	A	C5-C6-N6	-5.29	119.47	123.70
35	E	424	G	O4'-C1'-N9	5.29	112.43	108.20
35	E	653	A	C5-C6-N1	-5.29	115.06	117.70
35	E	1178	U	O4'-C1'-N1	5.29	112.43	108.20
35	E	1664	A	C5-C6-N6	-5.29	119.47	123.70
35	E	1709	G	O4'-C1'-N9	5.29	112.43	108.20
35	E	1862	C	N3-C4-C5	-5.29	119.78	121.90
35	E	1992	A	C5-C6-N1	-5.29	115.06	117.70
35	E	2294	A	C5-C6-N1	-5.29	115.06	117.70
35	E	1188	C	C5-C4-N4	-5.29	116.50	120.20
35	E	163	C	N3-C4-C5	-5.29	119.78	121.90
35	E	1175	A	C5-C6-N1	-5.29	115.06	117.70
35	E	549	A	O4'-C1'-N9	5.28	112.43	108.20
35	E	624	A	C5-C6-N6	-5.28	119.47	123.70
35	E	1927	A	C5-C6-N1	-5.28	115.06	117.70
35	E	2007	A	C5-C6-N1	-5.28	115.06	117.70
35	E	1307	G	O4'-C1'-N9	5.28	112.43	108.20
35	E	2054	G	O4'-C1'-N9	5.28	112.43	108.20
35	E	826	A	O4'-C1'-N9	5.28	112.42	108.20
35	E	877	A	C5-C6-N6	-5.28	119.48	123.70
35	E	1523	C	N3-C4-C5	-5.28	119.79	121.90
35	E	1726	C	N3-C4-N4	5.28	121.70	118.00
35	E	2052	C	N3-C4-N4	5.28	121.70	118.00
35	E	2104	A	C5-C6-N6	-5.28	119.48	123.70
35	E	2170	C	O4'-C1'-N1	5.28	112.42	108.20
35	E	2314	C	N3-C4-N4	5.28	121.70	118.00
35	E	902	A	C5-C6-N1	-5.28	115.06	117.70
35	E	1630	A	C5-C6-N1	-5.28	115.06	117.70
35	E	699	C	P-O3'-C3'	5.28	126.03	119.70
35	E	1608	G	O4'-C1'-N9	5.28	112.42	108.20
35	E	1700	U	O4'-C1'-N1	5.28	112.42	108.20
35	E	1746	G	O4'-C1'-N9	5.28	112.42	108.20
35	E	50	C	N3-C4-C5	-5.28	119.79	121.90
35	E	1282	C	N3-C4-C5	-5.28	119.79	121.90
35	E	1733	A	C5-C6-N1	-5.28	115.06	117.70
35	E	1811	C	N3-C4-C5	-5.28	119.79	121.90
35	E	2092	A	O4'-C1'-N9	5.28	112.42	108.20
35	E	2294	A	O4'-C1'-N9	5.28	112.42	108.20
35	E	516	A	C5-C6-N1	-5.27	115.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	545	U	O4'-C1'-N1	5.27	112.42	108.20
35	E	605	G	O4'-C1'-N9	5.27	112.42	108.20
35	E	771	A	O4'-C1'-N9	5.27	112.42	108.20
35	E	884	A	C5-C6-N1	-5.27	115.06	117.70
35	E	186	C	N3-C4-C5	-5.27	119.79	121.90
35	E	622	G	O4'-C1'-N9	5.27	112.42	108.20
35	E	711	A	C5-C6-N6	-5.27	119.48	123.70
35	E	1308	A	O4'-C1'-N9	5.27	112.42	108.20
35	E	1789	A	C5-C6-N6	-5.27	119.48	123.70
35	E	1966	C	C6-N1-C1'	-5.27	114.47	120.80
35	E	501	A	C5-C6-N1	-5.27	115.06	117.70
35	E	1821	C	N3-C4-C5	-5.27	119.79	121.90
35	E	104	C	N3-C4-C5	-5.27	119.79	121.90
35	E	1553	A	O4'-C1'-N9	5.27	112.42	108.20
35	E	1580	G	O4'-C1'-N9	5.27	112.42	108.20
35	E	2199	A	C5-C6-N1	-5.27	115.06	117.70
35	E	255	A	C5-C6-N1	-5.27	115.07	117.70
35	E	374	G	O4'-C1'-N9	5.27	112.41	108.20
35	E	1626	C	N3-C4-N4	5.27	121.69	118.00
35	E	1660	C	N3-C4-C5	-5.27	119.79	121.90
35	E	1698	A	C5-C6-N6	-5.27	119.49	123.70
35	E	1831	C	N3-C4-C5	-5.27	119.79	121.90
35	E	2284	A	C5-C6-N1	-5.27	115.07	117.70
35	E	1371	C	N3-C4-C5	-5.26	119.79	121.90
35	E	912	A	C5-C6-N6	-5.26	119.49	123.70
35	E	1077	C	N3-C4-C5	-5.26	119.80	121.90
35	E	845	A	C5-C6-N1	-5.26	115.07	117.70
35	E	915	A	C5-C6-N1	-5.26	115.07	117.70
35	E	1290	A	O4'-C1'-N9	5.26	112.41	108.20
35	E	2039	A	C5-C6-N6	-5.26	119.49	123.70
35	E	2103	A	O4'-C1'-N9	5.26	112.41	108.20
35	E	2174	C	N3-C4-C5	-5.26	119.80	121.90
35	E	2221	A	C5-C6-N1	-5.26	115.07	117.70
35	E	1543	C	N3-C4-C5	-5.26	119.80	121.90
35	E	1953	G	O4'-C1'-N9	5.26	112.41	108.20
35	E	2209	A	O4'-C1'-N9	5.26	112.41	108.20
35	E	284	C	N3-C4-N4	5.26	121.68	118.00
35	E	1242	A	C5-C6-N1	-5.26	115.07	117.70
35	E	1528	C	N3-C4-C5	-5.26	119.80	121.90
35	E	1935	C	N3-C4-N4	5.26	121.68	118.00
35	E	1361	A	O4'-C1'-N9	5.25	112.40	108.20
35	E	1727	C	N3-C4-N4	5.25	121.68	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	26	A	C5-C6-N1	-5.25	115.07	117.70
35	E	207	G	O4'-C1'-N9	5.25	112.40	108.20
35	E	606	G	O4'-C1'-N9	5.25	112.40	108.20
35	E	887	C	N3-C4-C5	-5.25	119.80	121.90
35	E	928	C	N3-C4-C5	-5.25	119.80	121.90
35	E	179	G	N3-C2-N2	5.25	123.58	119.90
35	E	598	A	C5-C6-N1	-5.25	115.08	117.70
35	E	786	A	C5-C6-N1	-5.25	115.08	117.70
35	E	826	A	C5-C6-N1	-5.25	115.08	117.70
35	E	862	A	C4-C5-C6	5.25	119.62	117.00
35	E	900	A	C5-C6-N1	-5.25	115.07	117.70
35	E	142	A	O4'-C1'-N9	5.25	112.40	108.20
35	E	353	C	N3-C4-C5	-5.25	119.80	121.90
35	E	483	A	O4'-C1'-N9	5.25	112.40	108.20
35	E	533	C	N3-C4-N4	5.25	121.67	118.00
35	E	792	G	O4'-C1'-N9	5.25	112.40	108.20
35	E	122	A	C5-C6-N1	-5.25	115.08	117.70
35	E	166	C	N3-C4-C5	-5.25	119.80	121.90
35	E	169	G	O4'-C1'-N9	5.25	112.40	108.20
35	E	874	C	N3-C4-C5	-5.25	119.80	121.90
35	E	2002	A	C5-C6-N1	-5.25	115.08	117.70
35	E	240	G	O4'-C1'-N9	5.25	112.40	108.20
35	E	263	G	O4'-C1'-N9	5.25	112.40	108.20
35	E	35	U	O4'-C1'-N1	5.24	112.39	108.20
35	E	68	A	C5-C6-N1	-5.24	115.08	117.70
35	E	765	A	O4'-C1'-N9	5.24	112.39	108.20
35	E	1185	A	N1-C2-N3	5.24	131.92	129.30
35	E	1575	G	O4'-C1'-N9	5.24	112.39	108.20
35	E	2300	A	C5-C6-N6	-5.24	119.50	123.70
35	E	1539	A	C5-C6-N1	-5.24	115.08	117.70
35	E	1903	A	C5-C6-N1	-5.24	115.08	117.70
35	E	2056	A	C5-C6-N6	-5.24	119.51	123.70
35	E	825	C	N3-C4-C5	-5.24	119.80	121.90
35	E	1878	A	C5-C6-N1	-5.24	115.08	117.70
35	E	112	A	C5-C6-N1	-5.24	115.08	117.70
35	E	695	G	O4'-C1'-N9	5.24	112.39	108.20
35	E	795	U	C2'-C3'-O3'	5.24	122.08	113.70
35	E	842	G	O4'-C1'-N9	5.24	112.39	108.20
35	E	895	A	C5-C6-N1	-5.24	115.08	117.70
35	E	1683	C	N3-C4-C5	-5.24	119.81	121.90
35	E	2271	A	O4'-C1'-N9	5.24	112.39	108.20
35	E	785	A	C5-C6-N1	-5.24	115.08	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1888	A	C5-C6-N6	-5.24	119.51	123.70
35	E	1935	C	N3-C4-C5	-5.24	119.81	121.90
35	E	2078	C	N3-C4-C5	-5.24	119.81	121.90
35	E	228	G	O4'-C1'-N9	5.24	112.39	108.20
35	E	291	G	O4'-C1'-N9	5.24	112.39	108.20
35	E	463	A	C5-C6-N1	-5.24	115.08	117.70
35	E	648	A	C5-C6-N6	-5.24	119.51	123.70
35	E	793	A	C5-C6-N6	-5.24	119.51	123.70
35	E	2204	A	C5-C6-N6	-5.24	119.51	123.70
35	E	90	A	C5-C6-N6	-5.23	119.51	123.70
35	E	668	C	N3-C4-C5	-5.23	119.81	121.90
35	E	414	A	O4'-C1'-N9	5.23	112.39	108.20
35	E	432	A	O4'-C1'-N9	5.23	112.39	108.20
35	E	576	A	O4'-C1'-N9	5.23	112.39	108.20
35	E	682	G	O4'-C1'-N9	5.23	112.39	108.20
35	E	782	A	C5-C6-N1	-5.23	115.08	117.70
35	E	1309	A	C5-C6-N1	-5.23	115.08	117.70
35	E	1910	G	O4'-C1'-N9	5.23	112.39	108.20
35	E	798	U	O4'-C1'-N1	5.23	112.39	108.20
35	E	920	A	C5-C6-N1	-5.23	115.08	117.70
35	E	2050	C	C5'-C4'-O4'	5.23	115.38	109.10
35	E	1739	G	O4'-C1'-N9	5.23	112.38	108.20
35	E	123	A	O4'-C1'-N9	5.23	112.38	108.20
35	E	288	A	C5-C6-N1	-5.23	115.09	117.70
35	E	360	A	C5-C6-N6	-5.23	119.52	123.70
35	E	452	C	N3-C4-C5	-5.23	119.81	121.90
35	E	1877	U	C4'-C3'-C2'	5.23	107.83	102.60
35	E	1944	G	O4'-C1'-N9	5.23	112.38	108.20
35	E	2069	A	C5-C6-N6	-5.23	119.52	123.70
35	E	2103	A	C5-C6-N6	-5.23	119.52	123.70
35	E	1591	C	N3-C4-C5	-5.23	119.81	121.90
35	E	1846	C	N3-C4-C5	-5.23	119.81	121.90
35	E	2050	C	N3-C4-N4	5.23	121.66	118.00
35	E	295	A	C5-C6-N1	-5.22	115.09	117.70
35	E	1378	A	O4'-C1'-N9	5.22	112.38	108.20
35	E	347	G	O4'-C1'-N9	5.22	112.38	108.20
35	E	629	C	N3-C4-C5	-5.22	119.81	121.90
35	E	931	G	O4'-C1'-N9	5.22	112.38	108.20
35	E	992	A	C5-C6-N1	-5.22	115.09	117.70
35	E	1780	G	O4'-C1'-N9	5.22	112.38	108.20
35	E	2241	G	O4'-C1'-N9	5.22	112.38	108.20
35	E	2299	A	O4'-C1'-N9	5.22	112.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	94	C	N3-C4-C5	-5.22	119.81	121.90
35	E	1568	A	C5-C6-N1	-5.22	115.09	117.70
35	E	2314	C	N3-C4-C5	-5.22	119.81	121.90
35	E	281	A	C5-C6-N1	-5.22	115.09	117.70
35	E	308	C	N3-C4-N4	5.22	121.65	118.00
35	E	498	A	C5-C6-N1	-5.22	115.09	117.70
35	E	515	C	N3-C4-C5	-5.22	119.81	121.90
35	E	1264	A	O4'-C1'-N9	5.22	112.38	108.20
35	E	1361	A	C5-C6-N1	-5.22	115.09	117.70
35	E	1359	C	N3-C4-C5	-5.22	119.81	121.90
35	E	491	C	N3-C4-C5	-5.22	119.81	121.90
35	E	658	A	C5-C6-N1	-5.22	115.09	117.70
35	E	1206	G	O4'-C1'-N9	5.22	112.37	108.20
35	E	1743	A	C4-C5-C6	5.22	119.61	117.00
35	E	659	A	O4'-C1'-N9	5.21	112.37	108.20
35	E	991	C	N3-C4-C5	-5.21	119.81	121.90
35	E	1201	G	C5'-C4'-C3'	5.21	124.34	116.00
35	E	1273	G	O4'-C1'-N9	5.21	112.37	108.20
35	E	1312	A	C5-C6-N1	-5.21	115.09	117.70
35	E	1825	A	C5-C6-N6	-5.21	119.53	123.70
35	E	1946	C	N3-C4-N4	5.21	121.65	118.00
35	E	2275	G	O4'-C1'-N9	5.21	112.37	108.20
35	E	538	A	C5-C6-N1	-5.21	115.09	117.70
35	E	569	A	O4'-C1'-N9	5.21	112.37	108.20
35	E	1741	G	O4'-C1'-N9	5.21	112.37	108.20
35	E	2109	G	O4'-C1'-N9	5.21	112.37	108.20
35	E	64	A	C5-C6-N6	-5.21	119.53	123.70
35	E	1625	A	C5-C6-N6	-5.21	119.53	123.70
35	E	2046	A	C5-C6-N1	-5.21	115.09	117.70
35	E	72	C	N3-C4-C5	-5.21	119.82	121.90
35	E	454	A	C5-C6-N6	-5.21	119.53	123.70
35	E	626	C	N3-C4-C5	-5.21	119.82	121.90
35	E	1548	C	N3-C4-N4	5.21	121.65	118.00
35	E	2258	C	N3-C4-C5	-5.21	119.82	121.90
26	j	97	ALA	N-CA-CB	5.21	117.39	110.10
35	E	48	G	O4'-C1'-N9	5.21	112.36	108.20
35	E	1311	C	N3-C4-C5	-5.21	119.82	121.90
35	E	1601	A	O4'-C1'-N9	5.21	112.36	108.20
35	E	1812	A	C5-C6-N6	-5.21	119.53	123.70
35	E	2248	G	N3-C2-N2	5.21	123.54	119.90
35	E	180	A	C5-C6-N1	-5.21	115.10	117.70
35	E	65	A	C5-C6-N1	-5.20	115.10	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	533	C	N3-C4-C5	-5.20	119.82	121.90
35	E	1300	C	C6-N1-C2	-5.20	118.22	120.30
35	E	1359	C	N3-C4-N4	5.20	121.64	118.00
35	E	879	C	N3-C4-C5	-5.20	119.82	121.90
35	E	1633	A	C5-C6-N6	-5.20	119.54	123.70
35	E	501	A	O4'-C1'-N9	5.20	112.36	108.20
35	E	525	A	C5-C6-N6	-5.20	119.54	123.70
35	E	584	C	N3-C4-C5	-5.20	119.82	121.90
35	E	903	G	O4'-C1'-N9	5.20	112.36	108.20
35	E	2274	A	C5-C6-N1	-5.20	115.10	117.70
35	E	248	G	O4'-C1'-N9	5.20	112.36	108.20
35	E	505	A	C5-C6-N1	-5.20	115.10	117.70
35	E	801	C	N3-C4-C5	-5.20	119.82	121.90
35	E	922	C	N3-C4-N4	5.20	121.64	118.00
35	E	963	G	O4'-C1'-N9	5.20	112.36	108.20
35	E	1358	G	O4'-C1'-N9	5.20	112.36	108.20
35	E	1368	A	C5-C6-N1	-5.20	115.10	117.70
35	E	2234	A	C5-C6-N1	-5.20	115.10	117.70
35	E	389	G	O4'-C1'-N9	5.20	112.36	108.20
35	E	674	A	C5-C6-N6	-5.20	119.54	123.70
35	E	729	C	N3-C4-N4	5.20	121.64	118.00
35	E	1987	A	C5-C6-N1	-5.20	115.10	117.70
35	E	2251	A	C5-C6-N1	-5.20	115.10	117.70
35	E	268	C	N3-C4-C5	-5.20	119.82	121.90
35	E	904	C	N3-C4-C5	-5.20	119.82	121.90
35	E	1937	A	C5-C6-N1	-5.20	115.10	117.70
35	E	2255	C	N3-C4-C5	-5.20	119.82	121.90
35	E	561	A	C5-C6-N1	-5.19	115.10	117.70
35	E	972	A	C5-C6-N1	-5.19	115.10	117.70
35	E	325	U	O4'-C1'-N1	5.19	112.35	108.20
35	E	539	G	O4'-C1'-N9	5.19	112.35	108.20
35	E	925	C	N3-C4-C5	-5.19	119.82	121.90
35	E	1340	A	C5-C6-N1	-5.19	115.10	117.70
35	E	1581	A	C5-C6-N1	-5.19	115.10	117.70
35	E	1607	A	C5-C6-N1	-5.19	115.10	117.70
35	E	1727	C	N3-C4-C5	-5.19	119.82	121.90
35	E	2007	A	C5-C6-N6	-5.19	119.55	123.70
35	E	744	C	C2-N1-C1'	5.19	124.51	118.80
35	E	993	A	C5-C6-N1	-5.19	115.11	117.70
35	E	1266	C	N3-C4-C5	-5.19	119.82	121.90
35	E	1954	C	N3-C4-C5	-5.19	119.82	121.90
35	E	2013	U	P-O3'-C3'	5.19	125.93	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	237	A	C5-C6-N6	-5.19	119.55	123.70
35	E	575	A	C5-C6-N6	-5.19	119.55	123.70
35	E	1633	A	O4'-C1'-N9	5.19	112.35	108.20
35	E	2296	G	O4'-C1'-N9	5.19	112.35	108.20
35	E	590	C	N3-C4-C5	-5.19	119.83	121.90
35	E	966	C	N3-C4-N4	5.19	121.63	118.00
35	E	1218	A	C5-C6-N1	-5.19	115.11	117.70
35	E	1982	C	N3-C4-C5	-5.19	119.83	121.90
35	E	1658	C	N3-C4-N4	5.19	121.63	118.00
30	m	146	ALA	N-CA-CB	5.18	117.36	110.10
35	E	554	C	N3-C4-C5	-5.18	119.83	121.90
35	E	945	C	O4'-C1'-N1	5.18	112.35	108.20
35	E	751	C	N3-C4-N4	5.18	121.63	118.00
35	E	914	C	N3-C4-N4	5.18	121.63	118.00
35	E	1248	A	C5-C6-N1	-5.18	115.11	117.70
35	E	1292	A	O4'-C1'-N9	5.18	112.35	108.20
35	E	1903	A	C4-C5-C6	5.18	119.59	117.00
35	E	596	A	C5-C6-N1	-5.18	115.11	117.70
35	E	2087	C	N3-C4-C5	-5.18	119.83	121.90
35	E	450	A	O4'-C1'-N9	5.18	112.34	108.20
35	E	1599	A	O4'-C1'-N9	5.18	112.34	108.20
35	E	419	G	O4'-C1'-N9	5.18	112.34	108.20
35	E	923	A	C5-C6-N1	-5.18	115.11	117.70
35	E	1199	G	O4'-C1'-N9	5.18	112.34	108.20
35	E	1663	C	N3-C4-C5	-5.18	119.83	121.90
35	E	1946	C	N3-C4-C5	-5.18	119.83	121.90
35	E	2005	A	C5-C6-N1	-5.18	115.11	117.70
35	E	435	G	O4'-C1'-N9	5.17	112.34	108.20
35	E	1626	C	O4'-C1'-N1	5.17	112.34	108.20
35	E	1925	A	C5-C6-N1	-5.17	115.11	117.70
35	E	2114	U	O4'-C1'-N1	5.17	112.34	108.20
35	E	2134	A	C5-C6-N6	-5.17	119.56	123.70
35	E	210	A	C5-C6-N1	-5.17	115.11	117.70
35	E	392	A	O4'-C1'-N9	5.17	112.34	108.20
35	E	588	A	C5-C6-N1	-5.17	115.11	117.70
35	E	684	A	C5-C6-N1	-5.17	115.11	117.70
35	E	1087	A	C5-C6-N6	-5.17	119.56	123.70
35	E	1566	A	C5-C6-N1	-5.17	115.11	117.70
35	E	1611	A	C5-C6-N6	-5.17	119.56	123.70
35	E	834	G	P-O5'-C5'	5.17	129.17	120.90
35	E	863	A	C5-C6-N6	-5.17	119.56	123.70
35	E	821	C	N3-C4-C5	-5.17	119.83	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1526	A	C5-C6-N1	-5.17	115.12	117.70
35	E	1898	G	O4'-C1'-N9	5.17	112.33	108.20
35	E	2171	C	N3-C4-C5	-5.17	119.83	121.90
35	E	308	C	N3-C4-C5	-5.17	119.83	121.90
35	E	1543	C	C5-C4-N4	-5.17	116.58	120.20
35	E	1798	G	O4'-C1'-N9	5.17	112.33	108.20
35	E	303	C	N3-C4-C5	-5.16	119.83	121.90
35	E	379	G	O4'-C1'-N9	5.16	112.33	108.20
35	E	932	G	N1-C2-N3	-5.16	120.80	123.90
35	E	1665	C	N3-C4-C5	-5.16	119.83	121.90
35	E	2202	A	O4'-C1'-N9	5.16	112.33	108.20
35	E	463	A	O4'-C1'-N9	5.16	112.33	108.20
35	E	455	C	N3-C4-C5	-5.16	119.84	121.90
35	E	1184	C	N3-C4-C5	-5.16	119.84	121.90
35	E	1552	A	C5-C6-N6	-5.16	119.57	123.70
35	E	317	G	O4'-C1'-N9	5.16	112.33	108.20
35	E	658	A	O4'-C1'-N9	5.16	112.33	108.20
35	E	1377	A	C5-C6-N1	-5.16	115.12	117.70
35	E	2004	A	C5-C6-N1	-5.16	115.12	117.70
35	E	282	C	N3-C4-C5	-5.16	119.84	121.90
35	E	681	C	N3-C4-C5	-5.16	119.84	121.90
35	E	908	G	O4'-C1'-N9	5.16	112.32	108.20
35	E	493	A	O4'-C1'-N9	5.15	112.32	108.20
35	E	1367	G	O4'-C1'-N9	5.15	112.32	108.20
35	E	218	C	N3-C4-C5	-5.15	119.84	121.90
35	E	336	C	N3-C4-C5	-5.15	119.84	121.90
35	E	1209	C	N3-C4-C5	-5.15	119.84	121.90
35	E	1362	A	C5-C6-N1	-5.15	115.12	117.70
35	E	1530	C	N3-C4-C5	-5.15	119.84	121.90
35	E	1563	G	O4'-C1'-N9	5.15	112.32	108.20
35	E	447	A	C5-C6-N1	-5.15	115.12	117.70
35	E	738	G	C6-C5-N7	-5.15	127.31	130.40
35	E	1259	A	C5-C6-N6	-5.15	119.58	123.70
35	E	2234	A	C4'-C3'-C2'	-5.15	97.45	102.60
35	E	740	U	O4'-C1'-N1	5.15	112.32	108.20
35	E	117	C	N3-C4-C5	-5.15	119.84	121.90
35	E	367	A	C5-C6-N1	-5.15	115.13	117.70
35	E	746	A	C5-C6-N6	-5.15	119.58	123.70
35	E	1801	C	N3-C4-C5	-5.15	119.84	121.90
35	E	272	G	O4'-C1'-N9	5.14	112.32	108.20
35	E	917	A	O4'-C1'-N9	5.14	112.31	108.20
35	E	1301	A	O4'-C1'-N9	5.14	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	779	A	C5-C6-N1	-5.14	115.13	117.70
35	E	784	A	O4'-C1'-N9	5.14	112.31	108.20
35	E	1538	G	O4'-C1'-N9	5.14	112.31	108.20
35	E	2120	A	O4'-C1'-N9	5.14	112.31	108.20
35	E	2204	A	C5-C6-N1	-5.14	115.13	117.70
35	E	43	A	C5-C6-N1	-5.14	115.13	117.70
35	E	781	A	C5-C6-N1	-5.14	115.13	117.70
35	E	1666	G	O4'-C1'-N9	5.14	112.31	108.20
35	E	975	U	P-O3'-C3'	5.14	125.87	119.70
35	E	1642	G	O4'-C1'-N9	5.14	112.31	108.20
35	E	1956	C	N3-C4-C5	-5.14	119.84	121.90
35	E	1370	A	C5-C6-N1	-5.14	115.13	117.70
35	E	1894	C	N3-C4-N4	5.14	121.60	118.00
35	E	1986	A	C5-C6-N1	-5.14	115.13	117.70
35	E	2136	A	O4'-C1'-N9	5.14	112.31	108.20
35	E	401	A	C5-C6-N1	-5.14	115.13	117.70
35	E	475	A	O4'-C1'-N9	5.14	112.31	108.20
35	E	1190	G	O4'-C1'-N9	5.14	112.31	108.20
35	E	1287	A	C5-C6-N1	-5.14	115.13	117.70
35	E	1891	C	N3-C4-C5	-5.14	119.84	121.90
35	E	261	A	C5-C6-N1	-5.13	115.13	117.70
35	E	316	A	C5-C6-N6	-5.13	119.59	123.70
35	E	1916	C	N3-C4-C5	-5.13	119.85	121.90
35	E	2189	A	C5-C6-N6	-5.13	119.59	123.70
35	E	2229	A	O4'-C1'-N9	5.13	112.31	108.20
35	E	2288	A	O4'-C1'-N9	5.13	112.31	108.20
15	W	165	TRP	CA-CB-CG	5.13	123.45	113.70
35	E	406	A	C5-C6-N1	-5.13	115.13	117.70
35	E	861	A	C5-C6-N6	-5.13	119.59	123.70
35	E	865	A	C5-C6-N1	-5.13	115.13	117.70
35	E	2238	A	O4'-C1'-N9	5.13	112.31	108.20
35	E	526	A	C5-C6-N1	-5.13	115.13	117.70
35	E	905	A	C5-C6-N6	-5.13	119.59	123.70
35	E	67	C	N3-C4-N4	5.13	121.59	118.00
35	E	315	A	C5-C6-N6	-5.13	119.60	123.70
35	E	676	G	O4'-C1'-N9	5.13	112.30	108.20
35	E	965	C	N3-C4-C5	-5.13	119.85	121.90
35	E	2264	A	O4'-C1'-N9	5.13	112.30	108.20
35	E	203	C	P-O3'-C3'	5.13	125.85	119.70
35	E	1220	G	O4'-C1'-N9	5.13	112.30	108.20
35	E	1864	C	N3-C4-C5	-5.13	119.85	121.90
35	E	2071	U	O4'-C1'-N1	5.13	112.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2222	G	O4'-C1'-N9	5.13	112.30	108.20
35	E	54	C	N3-C4-C5	-5.12	119.85	121.90
35	E	446	A	C5-C6-N6	-5.12	119.60	123.70
35	E	485	A	C5-C6-N6	-5.12	119.60	123.70
35	E	537	C	N3-C4-C5	-5.12	119.85	121.90
35	E	759	C	C5'-C4'-O4'	-5.12	102.95	109.10
35	E	2063	A	C5-C6-N6	-5.12	119.60	123.70
35	E	2	A	C5-C6-N1	-5.12	115.14	117.70
35	E	78	A	C5-C6-N1	-5.12	115.14	117.70
35	E	237	A	C5-C6-N1	-5.12	115.14	117.70
35	E	445	G	O4'-C1'-N9	5.12	112.30	108.20
35	E	1242	A	C5-C6-N6	-5.12	119.60	123.70
35	E	1385	A	O4'-C1'-N9	5.12	112.30	108.20
35	E	1565	U	O4'-C1'-N1	5.12	112.30	108.20
35	E	1695	A	C5-C6-N1	-5.12	115.14	117.70
35	E	1729	C	N3-C4-C5	-5.12	119.85	121.90
35	E	2143	C	N3-C4-C5	-5.12	119.85	121.90
35	E	2208	G	O4'-C1'-N9	5.12	112.30	108.20
35	E	51	A	O4'-C1'-N9	5.12	112.30	108.20
35	E	517	G	O4'-C1'-N9	5.12	112.30	108.20
20	f	205	PHE	CB-CG-CD1	5.12	124.38	120.80
35	E	684	A	C5-C6-N6	-5.12	119.61	123.70
35	E	916	A	O4'-C1'-N9	5.12	112.30	108.20
35	E	1257	C	N3-C4-C5	-5.12	119.85	121.90
35	E	140	C	N3-C4-C5	-5.12	119.85	121.90
35	E	1336	A	C5-C6-N1	-5.12	115.14	117.70
35	E	143	C	N3-C4-C5	-5.12	119.85	121.90
35	E	848	U	O4'-C1'-N1	5.12	112.29	108.20
35	E	1165	G	O4'-C1'-N9	5.12	112.29	108.20
35	E	1232	C	N3-C4-C5	-5.12	119.85	121.90
35	E	1981	A	O4'-C1'-N9	5.12	112.29	108.20
35	E	2283	A	O4'-C1'-N9	5.12	112.29	108.20
35	E	53	G	O4'-C1'-N9	5.11	112.29	108.20
35	E	724	A	O4'-C1'-N9	5.11	112.29	108.20
35	E	1340	A	O4'-C1'-N9	5.11	112.29	108.20
35	E	2178	C	N3-C4-C5	-5.11	119.86	121.90
35	E	2203	C	N3-C4-C5	-5.11	119.86	121.90
35	E	1778	U	O4'-C1'-N1	5.11	112.29	108.20
35	E	732	C	N3-C4-N4	5.11	121.58	118.00
35	E	829	C	N3-C4-C5	-5.11	119.86	121.90
35	E	902	A	O4'-C1'-N9	5.11	112.29	108.20
35	E	1353	A	O4'-C1'-N9	5.11	112.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1873	G	O4'-C1'-N9	5.11	112.29	108.20
35	E	1240	A	O4'-C1'-N9	5.11	112.29	108.20
35	E	2215	C	P-O3'-C3'	5.11	125.83	119.70
35	E	87	C	N3-C4-C5	-5.11	119.86	121.90
35	E	588	A	O4'-C1'-N9	5.11	112.29	108.20
35	E	1623	G	O4'-C1'-N9	5.11	112.29	108.20
35	E	1760	G	O4'-C1'-N9	5.11	112.29	108.20
35	E	2059	A	O4'-C1'-N9	5.11	112.29	108.20
35	E	2216	A	C5-C6-N6	-5.11	119.61	123.70
24	a	104	PHE	CB-CG-CD1	5.11	124.37	120.80
34	h	206	ALA	N-CA-CB	5.11	117.25	110.10
35	E	49	C	N3-C4-C5	-5.11	119.86	121.90
35	E	523	A	C5-C6-N6	-5.11	119.61	123.70
35	E	603	G	O4'-C1'-N9	5.11	112.28	108.20
35	E	1360	A	O4'-C1'-N9	5.11	112.28	108.20
35	E	1799	A	O4'-C1'-N9	5.11	112.28	108.20
35	E	39	A	C5-C6-N6	-5.10	119.62	123.70
35	E	409	G	O4'-C1'-N9	5.10	112.28	108.20
35	E	1610	A	O4'-C1'-N9	5.10	112.28	108.20
35	E	209	C	N3-C4-C5	-5.10	119.86	121.90
35	E	1788	C	N3-C4-N4	5.10	121.57	118.00
35	E	242	A	O4'-C1'-N9	5.10	112.28	108.20
35	E	877	A	C5-C6-N1	-5.10	115.15	117.70
35	E	583	C	N3-C4-C5	-5.10	119.86	121.90
35	E	817	A	C5-C6-N6	-5.10	119.62	123.70
35	E	822	A	C5-C6-N1	-5.10	115.15	117.70
35	E	983	C	N3-C4-C5	-5.10	119.86	121.90
35	E	1365	A	C5-C6-N1	-5.10	115.15	117.70
35	E	214	C	O4'-C1'-N1	5.10	112.28	108.20
35	E	661	G	O4'-C1'-N9	5.10	112.28	108.20
35	E	1269	C	C2-N3-C4	5.10	122.45	119.90
35	E	1546	C	P-O5'-C5'	5.10	129.06	120.90
35	E	1878	A	O4'-C1'-N9	5.10	112.28	108.20
35	E	1936	A	O4'-C1'-N9	5.10	112.28	108.20
35	E	1976	C	N3-C4-C5	-5.10	119.86	121.90
35	E	2213	G	C2'-C3'-O3'	5.10	121.86	113.70
35	E	2220	G	O4'-C1'-N9	5.10	112.28	108.20
35	E	250	A	O4'-C1'-N9	5.10	112.28	108.20
35	E	711	A	C6-N1-C2	5.09	121.66	118.60
35	E	1274	A	C4-C5-C6	5.09	119.55	117.00
35	E	2214	A	C5-C6-N1	-5.09	115.15	117.70
35	E	1354	C	N3-C4-C5	-5.09	119.86	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2148	A	C5-C6-N6	-5.09	119.63	123.70
35	E	2158	C	N3-C4-C5	-5.09	119.86	121.90
35	E	764	A	C5-C6-N1	-5.09	115.15	117.70
35	E	1547	A	O4'-C1'-N9	5.09	112.27	108.20
35	E	2120	A	C5-C6-N6	-5.09	119.63	123.70
35	E	43	A	O4'-C1'-N9	5.09	112.27	108.20
35	E	352	A	O4'-C1'-N9	5.09	112.27	108.20
35	E	913	A	C5-C6-N6	-5.09	119.63	123.70
35	E	1827	U	O4'-C1'-N1	5.09	112.27	108.20
35	E	408	C	N3-C4-C5	-5.09	119.87	121.90
35	E	655	A	C5-C6-N1	-5.09	115.16	117.70
35	E	1222	A	O4'-C1'-N9	5.09	112.27	108.20
35	E	1808	G	O4'-C1'-N9	5.08	112.27	108.20
35	E	2152	C	N3-C4-C5	-5.08	119.87	121.90
35	E	131	C	N3-C4-C5	-5.08	119.87	121.90
35	E	294	G	O4'-C1'-N9	5.08	112.27	108.20
35	E	299	A	C5-C6-N6	-5.08	119.63	123.70
35	E	862	A	C5-C6-N6	-5.08	119.63	123.70
35	E	2159	A	C5-C6-N1	-5.08	115.16	117.70
35	E	231	A	C5-C6-N6	-5.08	119.64	123.70
35	E	381	A	C5-C6-N1	-5.08	115.16	117.70
35	E	1939	A	C5-C6-N6	-5.08	119.64	123.70
35	E	2200	A	O4'-C1'-N9	5.08	112.26	108.20
5	u	9	GLN	C-N-CA	5.08	134.39	121.70
35	E	734	G	N3-C4-N9	-5.08	122.95	126.00
35	E	1374	A	O4'-C1'-N9	5.08	112.26	108.20
35	E	2081	G	O4'-C1'-N9	5.08	112.26	108.20
35	E	137	C	N3-C4-C5	-5.08	119.87	121.90
35	E	406	A	O4'-C1'-N9	5.08	112.26	108.20
35	E	17	C	N3-C4-C5	-5.08	119.87	121.90
35	E	1338	A	C5-C6-N6	-5.08	119.64	123.70
35	E	349	A	C5-C6-N1	-5.07	115.16	117.70
35	E	518	C	N3-C4-C5	-5.07	119.87	121.90
35	E	1258	A	O4'-C1'-N9	5.07	112.26	108.20
35	E	1573	C	N3-C4-C5	-5.07	119.87	121.90
35	E	778	A	O4'-C1'-N9	5.07	112.26	108.20
35	E	2280	A	C5-C6-N1	-5.07	115.16	117.70
35	E	500	A	C5-C6-N1	-5.07	115.17	117.70
35	E	782	A	O4'-C1'-N9	5.07	112.26	108.20
35	E	1235	A	O4'-C1'-N9	5.07	112.26	108.20
35	E	1540	C	N3-C4-N4	5.07	121.55	118.00
35	E	1262	C	N3-C4-C5	-5.07	119.87	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1630	A	O4'-C1'-N9	5.07	112.25	108.20
11	S	53	SER	N-CA-CB	5.07	118.10	110.50
35	E	242	A	C5-C6-N1	-5.07	115.17	117.70
35	E	271	C	N3-C4-C5	-5.07	119.87	121.90
35	E	454	A	O4'-C1'-N9	5.07	112.25	108.20
35	E	575	A	C5-C6-N1	-5.07	115.17	117.70
35	E	1887	U	O4'-C1'-N1	5.07	112.25	108.20
35	E	2022	A	C5-C6-N1	-5.07	115.17	117.70
35	E	278	A	C5-C6-N1	-5.07	115.17	117.70
35	E	490	C	N3-C4-C5	-5.07	119.87	121.90
35	E	1368	A	O4'-C1'-N9	5.07	112.25	108.20
35	E	224	C	N3-C4-C5	-5.06	119.87	121.90
35	E	349	A	O4'-C1'-N9	5.06	112.25	108.20
35	E	2067	C	N3-C4-N4	5.06	121.55	118.00
35	E	1075	G	C5'-C4'-O4'	-5.06	103.03	109.10
35	E	2211	C	N3-C4-C5	-5.06	119.88	121.90
35	E	149	A	C3'-C2'-C1'	5.06	105.55	101.50
35	E	1606	A	O4'-C1'-N9	5.06	112.25	108.20
35	E	2006	A	C5-C6-N1	-5.06	115.17	117.70
35	E	2271	A	C5-C6-N6	-5.06	119.65	123.70
35	E	488	G	O4'-C1'-N9	5.06	112.25	108.20
35	E	763	G	O4'-C1'-N9	5.06	112.25	108.20
35	E	1639	A	C5-C6-N1	-5.06	115.17	117.70
35	E	472	A	O4'-C1'-N9	5.06	112.25	108.20
35	E	1569	G	O4'-C1'-N9	5.06	112.25	108.20
30	m	178	ALA	N-CA-CB	5.05	117.17	110.10
35	E	597	C	O4'-C1'-N1	5.05	112.24	108.20
35	E	1978	C	N3-C4-C5	-5.05	119.88	121.90
35	E	1586	G	O4'-C1'-N9	5.05	112.24	108.20
35	E	1237	G	N3-C2-N2	5.05	123.44	119.90
35	E	1326	G	O4'-C1'-N9	5.05	112.24	108.20
35	E	576	A	C5-C6-N1	-5.05	115.17	117.70
35	E	866	A	C5-C6-N6	-5.05	119.66	123.70
35	E	1702	A	O4'-C1'-N9	5.05	112.24	108.20
35	E	456	C	N3-C4-C5	-5.04	119.88	121.90
35	E	513	G	O4'-C1'-N9	5.04	112.24	108.20
35	E	575	A	O4'-C1'-N9	5.04	112.24	108.20
35	E	1245	C	N3-C4-C5	-5.04	119.88	121.90
35	E	1976	C	N3-C4-N4	5.04	121.53	118.00
35	E	2107	A	O4'-C1'-N9	5.04	112.24	108.20
35	E	1602	C	N3-C4-C5	-5.04	119.88	121.90
35	E	1651	A	C5-C6-N1	-5.04	115.18	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	2034	A	C5-C6-N1	-5.04	115.18	117.70
35	E	2302	C	N3-C4-C5	-5.04	119.88	121.90
35	E	1183	G	O4'-C1'-N9	5.04	112.23	108.20
35	E	299	A	O4'-C1'-N9	5.04	112.23	108.20
35	E	845	A	O4'-C1'-N9	5.04	112.23	108.20
35	E	1385	A	C5-C6-N1	-5.04	115.18	117.70
35	E	1595	A	O4'-C1'-N9	5.04	112.23	108.20
35	E	2038	G	O4'-C1'-N9	5.04	112.23	108.20
35	E	26	A	O4'-C1'-N9	5.04	112.23	108.20
35	E	1540	C	N3-C4-C5	-5.04	119.89	121.90
35	E	2131	A	C5-C6-N1	-5.04	115.18	117.70
35	E	813	U	O4'-C1'-N1	5.03	112.23	108.20
35	E	1699	U	O4'-C1'-N1	5.03	112.23	108.20
35	E	1768	A	C5-C6-N6	-5.03	119.67	123.70
35	E	1802	C	N3-C4-C5	-5.03	119.89	121.90
35	E	2149	C	N3-C4-C5	-5.03	119.89	121.90
35	E	2233	G	O4'-C1'-N9	5.03	112.23	108.20
35	E	216	A	C5-C6-N1	-5.03	115.18	117.70
35	E	249	A	C5-C6-N1	-5.03	115.19	117.70
35	E	600	U	O4'-C1'-N1	5.03	112.22	108.20
35	E	877	A	O4'-C1'-N9	5.03	112.22	108.20
35	E	1252	C	N3-C4-C5	-5.03	119.89	121.90
35	E	1547	A	C5-C6-N6	-5.03	119.68	123.70
35	E	721	C	N3-C4-C5	-5.03	119.89	121.90
35	E	2187	C	N3-C4-C5	-5.03	119.89	121.90
35	E	2247	C	N3-C4-C5	-5.03	119.89	121.90
35	E	983	C	N3-C4-N4	5.03	121.52	118.00
35	E	1261	A	C5-C6-N1	-5.03	115.19	117.70
35	E	1310	C	N3-C4-C5	-5.03	119.89	121.90
35	E	2287	U	O4'-C1'-N1	5.03	112.22	108.20
35	E	738	G	C5-C6-N1	-5.03	108.99	111.50
35	E	2012	C	N3-C4-C5	-5.03	119.89	121.90
35	E	2290	C	N3-C4-C5	-5.03	119.89	121.90
35	E	1580	G	N3-C2-N2	5.02	123.42	119.90
35	E	202	C	N3-C4-C5	-5.02	119.89	121.90
3	r	121	TYR	CB-CG-CD1	5.02	124.01	121.00
35	E	2095	G	C4-N9-C1'	5.02	133.02	126.50
35	E	211	G	O4'-C1'-N9	5.02	112.21	108.20
35	E	1254	C	N3-C4-C5	-5.02	119.89	121.90
35	E	436	G	O4'-C1'-N9	5.02	112.21	108.20
35	E	623	C	N3-C4-C5	-5.02	119.89	121.90
35	E	771	A	C5-C6-N1	-5.02	115.19	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	E	1250	A	O4'-C1'-N9	5.01	112.21	108.20
35	E	1589	C	N3-C4-C5	-5.01	119.89	121.90
35	E	206	C	N3-C4-C5	-5.01	119.89	121.90
35	E	616	G	O4'-C1'-N9	5.01	112.21	108.20
35	E	1074	C	N3-C4-C5	-5.01	119.89	121.90
35	E	2169	A	C5-C6-N1	-5.01	115.19	117.70
35	E	411	G	O4'-C1'-N9	5.01	112.21	108.20
35	E	2088	A	C5-C6-N1	-5.01	115.19	117.70
35	E	111	A	C5-C6-N1	-5.01	115.20	117.70
35	E	1980	C	N3-C4-C5	-5.01	119.90	121.90
35	E	313	G	C8-N9-C1'	-5.01	120.49	127.00
35	E	295	A	O4'-C1'-N9	5.00	112.20	108.20
35	E	1194	U	O4'-C1'-N1	5.00	112.20	108.20
35	E	522	A	C5-C6-N6	-5.00	119.70	123.70
35	E	534	C	N3-C4-C5	-5.00	119.90	121.90
35	E	542	C	N3-C4-C5	-5.00	119.90	121.90
35	E	1072	G	O4'-C1'-N9	5.00	112.20	108.20
35	E	1230	G	O4'-C1'-N9	5.00	112.20	108.20
35	E	1328	A	C5-C6-N1	-5.00	115.20	117.70
35	E	2023	C	N3-C4-N4	5.00	121.50	118.00
35	E	189	G	O4'-C1'-N9	5.00	112.20	108.20
35	E	232	C	N3-C4-C5	-5.00	119.90	121.90
35	E	271	C	P-O5'-C5'	5.00	128.90	120.90
35	E	484	A	C5-C6-N6	-5.00	119.70	123.70
35	E	1998	A	C5-C6-N1	-5.00	115.20	117.70
35	E	2121	G	O4'-C1'-N9	5.00	112.20	108.20

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
35	E	325	U	C3'
35	E	702	U	C1'
35	E	810	U	C3'
35	E	1903	A	C3'

All (180) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
35	E	1080	U	Sidechain
35	E	1084	G	Sidechain
35	E	1169	U	Sidechain
35	E	1170	C	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
35	E	1171	C	Sidechain
35	E	1182	G	Sidechain
35	E	1186	U	Sidechain
35	E	1187	C	Sidechain
35	E	1188	C	Sidechain
35	E	1190	G	Sidechain
35	E	1253	G	Sidechain
35	E	1271	G	Sidechain
35	E	1300	C	Sidechain
35	E	1358	G	Sidechain
35	E	1376	G	Sidechain
35	E	143	C	Sidechain
35	E	1542	U	Sidechain
35	E	1543	C	Sidechain
35	E	1559	U	Sidechain
35	E	1560	G	Sidechain
35	E	159	G	Sidechain
35	E	1625	A	Sidechain
35	E	1638	G	Sidechain
35	E	1651	A	Sidechain
35	E	1652	A	Sidechain
35	E	1667	G	Sidechain
35	E	1670	A	Sidechain
35	E	1686	G	Sidechain
35	E	1714	U	Sidechain
35	E	172	A	Sidechain
35	E	1735	G	Sidechain
35	E	1737	U	Sidechain
35	E	1825	A	Sidechain
35	E	1867	G	Sidechain
35	E	1870	G	Sidechain
35	E	1872	G	Sidechain
35	E	1873	G	Sidechain
35	E	1874	C	Sidechain
35	E	1876	G	Sidechain
35	E	1880	U	Sidechain
35	E	1886	G	Sidechain
35	E	1903	A	Sidechain
35	E	1924	G	Sidechain
35	E	1925	A	Sidechain
35	E	1928	U	Sidechain
35	E	1941	C	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
35	E	1989	G	Sidechain
35	E	2003	G	Sidechain
35	E	2012	C	Sidechain
35	E	2019	C	Sidechain
35	E	202	C	Sidechain
35	E	2044	G	Sidechain
35	E	2075	G	Sidechain
35	E	2113	G	Sidechain
35	E	2129	U	Sidechain
35	E	213	G	Sidechain
35	E	2153	C	Sidechain
35	E	2215	C	Sidechain
35	E	2239	A	Sidechain
35	E	2240	A	Sidechain
35	E	226	A	Sidechain
35	E	228	G	Sidechain
35	E	2283	A	Sidechain
35	E	249	A	Sidechain
35	E	259	C	Sidechain
35	E	260	A	Sidechain
35	E	344	G	Sidechain
35	E	361	U	Sidechain
35	E	39	A	Sidechain
35	E	476	G	Sidechain
35	E	481	G	Sidechain
35	E	512	A	Sidechain
35	E	60	U	Sidechain
35	E	600	U	Sidechain
35	E	667	G	Sidechain
35	E	700	U	Sidechain
35	E	701	C	Sidechain
35	E	706	G	Sidechain
35	E	708	G	Sidechain
35	E	710	A	Sidechain
35	E	712	U	Sidechain
35	E	713	G	Sidechain
35	E	717	U	Sidechain
35	E	718	A	Sidechain
35	E	719	G	Sidechain
35	E	720	U	Sidechain
35	E	721	C	Sidechain
35	E	724	A	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
35	E	726	C	Sidechain
35	E	733	G	Sidechain
35	E	734	G	Sidechain
35	E	735	A	Sidechain
35	E	738	G	Sidechain
35	E	739	G	Sidechain
35	E	741	G	Sidechain
35	E	744	C	Sidechain
35	E	746	A	Sidechain
35	E	754	G	Sidechain
35	E	756	G	Sidechain
35	E	758	U	Sidechain
35	E	759	C	Sidechain
35	E	774	C	Sidechain
35	E	776	G	Sidechain
35	E	788	A	Sidechain
35	E	792	G	Sidechain
35	E	796	G	Sidechain
35	E	807	U	Sidechain
35	E	824	G	Sidechain
35	E	828	G	Sidechain
35	E	834	G	Sidechain
35	E	849	U	Sidechain
35	E	874	C	Sidechain
35	E	936	C	Sidechain
35	E	937	C	Sidechain
35	E	953	G	Sidechain
35	E	954	G	Sidechain
35	E	966	C	Sidechain
35	E	979	G	Sidechain
35	E	982	G	Sidechain
35	E	984	A	Sidechain
35	E	989	G	Sidechain
8	O	138	TYR	Sidechain
8	O	150	ARG	Peptide
8	O	57	ARG	Sidechain
27	P	44	ASP	Peptide
27	P	9	ARG	Peptide
9	Q	112	TYR	Sidechain
9	Q	119	ARG	Sidechain
9	Q	37	LYS	Peptide
15	W	81	ASP	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
18	Z	56	ARG	Sidechain
24	a	107	TYR	Sidechain
24	a	46	VAL	Peptide
33	c	62	PRO	Peptide
33	c	65	ALA	Peptide
22	e	57	ARG	Sidechain
34	h	111	ALA	Peptide
34	h	120	LEU	Peptide
34	h	139	THR	Peptide
34	h	147	ASN	Peptide
34	h	154	SER	Peptide
34	h	155	PRO	Peptide
34	h	157	PHE	Peptide
34	h	158	ARG	Peptide
34	h	159	ALA	Peptide
34	h	160	SER	Peptide
34	h	174	LYS	Peptide
34	h	179	ARG	Peptide
34	h	180	THR	Peptide
34	h	182	ARG	Peptide
34	h	183	ASN	Peptide
34	h	184	ASN	Peptide
34	h	203	LYS	Peptide
34	h	207	GLU	Peptide
34	h	217	LEU	Peptide
34	h	77	GLN	Peptide
34	h	93	VAL	Peptide
34	h	94	VAL	Peptide
26	j	99	LYS	Peptide
28	k	173	ARG	Sidechain
30	m	142	LYS	Peptide
30	m	145	ARG	Peptide
32	o	63	ALA	Peptide
32	o	89	TYR	Sidechain
1	p	110	LYS	Peptide
1	p	261	ARG	Sidechain
1	p	43	TRP	Peptide
3	r	120	LYS	Peptide
3	r	121	TYR	Peptide
3	r	141	ARG	Peptide
3	r	142	THR	Peptide
3	r	147	SER	Peptide

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Mol	Chain	Res	Type	Group
3	r	32	GLN	Peptide
3	r	42	VAL	Peptide
4	t	104	TYR	Sidechain
4	t	128	MET	Peptide
5	u	43	TYR	Sidechain
5	u	48	LYS	Peptide
5	u	56	ARG	Peptide
5	u	9	GLN	Peptide

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	p	2405	0	2323	0	0
2	q	311	0	319	0	0
3	r	1113	0	1175	0	0
4	t	969	0	1003	0	0
5	u	981	0	1021	0	0
6	L	2038	0	2142	0	0
7	M	1116	0	1169	0	0
8	O	1493	0	1562	0	0
9	Q	1670	0	1778	1	0
10	R	1143	0	1226	1	0
11	S	630	0	630	0	0
12	T	829	0	866	0	0
13	U	526	0	550	0	0
14	V	1011	0	1019	0	0
15	W	1781	0	1853	0	0
16	X	1212	0	1250	0	0
17	Y	989	0	1065	0	0
18	Z	1404	0	1503	1	0
19	b	1365	0	1410	0	0
20	f	1658	0	1704	0	0
21	d	1726	0	1774	0	0
22	e	1019	0	1050	0	0
23	g	635	0	631	0	0
24	a	553	0	608	0	0
25	i	958	0	981	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	j	518	0	513	0	0
27	P	1983	0	2131	0	0
28	k	972	0	1031	0	0
29	l	784	0	848	0	0
30	m	1587	0	1662	0	0
31	n	780	0	771	0	0
32	o	1116	0	1166	0	0
33	c	480	0	532	0	0
34	h	1358	0	1419	0	0
35	E	43106	0	21756	87	0
All	All	82219	0	62441	87	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

All (87) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:E:725:U:H3	35:E:733:G:H1	1.12	0.96
35:E:1849:U:H3	35:E:1869:G:H1	1.26	0.83
35:E:207:G:H1	35:E:222:U:H3	1.30	0.78
35:E:2220:G:H1	35:E:2232:U:H3	1.32	0.77
35:E:711:A:N1	35:E:746:A:N1	2.33	0.77
35:E:1085:G:H1	35:E:1169:U:H3	1.33	0.76
35:E:322:G:H1	35:E:331:U:H3	1.31	0.76
35:E:546:U:H2'	35:E:547:G:H5'	1.68	0.75
35:E:539:G:H1	35:E:550:U:H3	1.35	0.74
35:E:259:C:N3	35:E:954:G:N1	2.35	0.73
35:E:724:A:C4	35:E:735:A:C2	2.80	0.70
35:E:216:A:H2'	35:E:217:C:H5'	1.74	0.69
35:E:1088:A:N1	35:E:1166:C:N3	2.41	0.69
35:E:532:G:H1	35:E:558:U:H3	1.38	0.69
35:E:1089:U:H3	35:E:1165:G:H1	1.39	0.68
35:E:1381:G:H1	35:E:1537:U:H3	1.40	0.67
35:E:880:A:H62	35:E:892:U:H3	1.43	0.64
35:E:546:U:C2'	35:E:547:G:H5'	2.28	0.63
35:E:724:A:C2	35:E:734:G:N1	2.65	0.63
35:E:259:C:C2	35:E:954:G:C2	2.88	0.62
35:E:2124:G:H22	35:E:2140:U:H3	1.48	0.61
35:E:1852:G:C2	35:E:1866:A:C2	2.93	0.57
35:E:216:A:C2'	35:E:217:C:H5'	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:E:1872:G:C6	35:E:1873:G:C6	2.94	0.55
35:E:724:A:C2	35:E:725:U:C2	2.96	0.54
35:E:2004:A:H61	35:E:2052:C:H41	1.57	0.53
35:E:259:C:N3	35:E:954:G:C6	2.77	0.53
35:E:817:A:C2	35:E:828:G:C2	2.97	0.52
35:E:1856:G:H3'	35:E:1857:U:H5''	1.92	0.52
35:E:989:G:H1	35:E:1177:C:H42	1.57	0.51
35:E:1689:A:H1'	35:E:1691:G:H1	1.74	0.51
35:E:718:A:C2	35:E:719:G:C2	2.99	0.51
35:E:1911:U:H3	35:E:1917:G:H1	1.59	0.50
35:E:1852:G:N1	35:E:1866:A:C2	2.80	0.50
35:E:1184:C:H2'	35:E:1185:A:C8	2.46	0.50
35:E:724:A:N1	35:E:734:G:C6	2.80	0.50
35:E:1866:A:C2	35:E:1867:G:C4	3.00	0.49
35:E:260:A:N1	35:E:953:G:C6	2.81	0.49
35:E:744:C:H2'	35:E:745:C:C6	2.47	0.49
35:E:259:C:C4	35:E:954:G:N1	2.81	0.48
35:E:202:C:N3	35:E:226:A:N1	2.61	0.48
35:E:1200:A:N1	35:E:1300:C:C4	2.81	0.48
35:E:1848:U:H3	35:E:1870:G:H1	1.60	0.48
35:E:1384:G:N1	35:E:1534:A:C2	2.82	0.48
35:E:2091:U:H3'	35:E:2092:A:H5''	1.96	0.48
35:E:1987:A:H3'	35:E:1988:U:H5'	1.96	0.47
35:E:260:A:C6	35:E:953:G:N1	2.82	0.47
35:E:711:A:C2	35:E:746:A:C2	3.03	0.47
35:E:120:C:H3'	35:E:121:A:H5''	1.97	0.47
35:E:1908:U:H3'	35:E:1909:U:H5'	1.98	0.46
35:E:734:G:C6	35:E:735:A:C6	3.04	0.46
35:E:1375:U:H3	35:E:1543:C:N4	2.13	0.45
35:E:774:C:H1'	35:E:775:A:H5''	1.98	0.45
35:E:259:C:C2	35:E:954:G:C4	3.05	0.45
35:E:2051:C:H3'	35:E:2052:C:H4'	1.99	0.45
35:E:1846:C:C2	35:E:1873:G:N2	2.85	0.44
35:E:1923:U:H3	35:E:1927:A:H62	1.66	0.44
35:E:156:G:H3'	35:E:157:G:H5''	1.99	0.44
35:E:1169:U:C4	35:E:1170:C:C4	3.05	0.44
35:E:743:C:H2'	35:E:744:C:C6	2.52	0.43
35:E:999:U:H3	35:E:1072:G:H1	1.66	0.43
35:E:1872:G:N1	35:E:1873:G:N1	2.66	0.43
35:E:824:G:H5''	35:E:825:C:H5''	1.99	0.43
35:E:711:A:C5	35:E:712:U:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:Z:64:ASN:HD21	35:E:305:U:H2'	1.83	0.43
35:E:1380:U:H3	35:E:1538:G:H1	1.65	0.43
35:E:1542:U:H2'	35:E:1543:C:H5''	2.01	0.43
10:R:16:LEU:HD11	35:E:1196:A:H5''	2.01	0.43
35:E:711:A:N1	35:E:746:A:C2	2.86	0.42
35:E:1905:U:H3	35:E:1922:G:H22	1.68	0.42
35:E:714:G:H2'	35:E:718:A:H62	1.84	0.42
35:E:1629:C:H1'	35:E:2153:C:H41	1.84	0.42
35:E:1852:G:C6	35:E:1866:A:N1	2.88	0.42
35:E:260:A:C2	35:E:953:G:C2	3.08	0.42
35:E:1993:G:H21	35:E:1994:U:H2'	1.84	0.41
35:E:703:A:C2	35:E:704:A:C5	3.09	0.41
35:E:260:A:C2	35:E:953:G:C4	3.08	0.41
35:E:724:A:C6	35:E:735:A:N1	2.88	0.41
35:E:1825:A:C2	35:E:1879:U:O4	2.73	0.41
35:E:1852:G:N2	35:E:1866:A:C2	2.89	0.41
35:E:817:A:N1	35:E:828:G:N1	2.69	0.41
35:E:718:A:C2	35:E:744:C:O2	2.73	0.41
35:E:602:G:N1	35:E:645:A:N1	2.69	0.41
35:E:1856:G:C3'	35:E:1857:U:H5''	2.51	0.41
9:Q:103:LYS:HA	35:E:763:G:H1	1.85	0.41
35:E:1384:G:C2	35:E:1534:A:C2	3.09	0.40
35:E:216:A:C2	35:E:217:C:C6	3.10	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

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

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	p	308/318 (97%)	288 (94%)	18 (6%)	2 (1%)	22 58
2	q	36/57 (63%)	28 (78%)	6 (17%)	2 (6%)	1 18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	r	138/149 (93%)	113 (82%)	18 (13%)	7 (5%)	1	19
4	t	117/152 (77%)	105 (90%)	8 (7%)	4 (3%)	3	25
5	u	118/153 (77%)	102 (86%)	13 (11%)	3 (2%)	4	30
6	L	256/273 (94%)	239 (93%)	16 (6%)	1 (0%)	30	66
7	M	140/143 (98%)	131 (94%)	8 (6%)	1 (1%)	19	55
8	O	188/190 (99%)	165 (88%)	16 (8%)	7 (4%)	2	23
9	Q	198/211 (94%)	178 (90%)	16 (8%)	4 (2%)	6	34
10	R	139/151 (92%)	127 (91%)	11 (8%)	1 (1%)	19	55
11	S	80/86 (93%)	73 (91%)	5 (6%)	2 (2%)	4	30
12	T	102/112 (91%)	90 (88%)	12 (12%)	0	100	100
13	U	66/112 (59%)	62 (94%)	3 (4%)	1 (2%)	8	40
14	V	133/144 (92%)	116 (87%)	16 (12%)	1 (1%)	16	53
15	W	215/261 (82%)	200 (93%)	13 (6%)	2 (1%)	14	49
16	X	146/173 (84%)	133 (91%)	11 (8%)	2 (1%)	9	40
17	Y	121/137 (88%)	113 (93%)	8 (7%)	0	100	100
18	Z	171/221 (77%)	157 (92%)	12 (7%)	2 (1%)	11	43
19	b	162/190 (85%)	143 (88%)	17 (10%)	2 (1%)	11	43
20	f	205/245 (84%)	190 (93%)	12 (6%)	3 (2%)	8	40
21	d	221/263 (84%)	205 (93%)	14 (6%)	2 (1%)	14	49
22	e	127/130 (98%)	118 (93%)	8 (6%)	1 (1%)	16	53
23	g	81/236 (34%)	78 (96%)	3 (4%)	0	100	100
24	a	68/110 (62%)	58 (85%)	6 (9%)	4 (6%)	1	17
25	i	119/141 (84%)	111 (93%)	7 (6%)	1 (1%)	16	53
26	j	62/150 (41%)	47 (76%)	11 (18%)	4 (6%)	1	16
27	P	247/250 (99%)	226 (92%)	21 (8%)	0	100	100
28	k	116/196 (59%)	102 (88%)	13 (11%)	1 (1%)	14	49
29	l	97/117 (83%)	82 (84%)	15 (16%)	0	100	100
30	m	198/214 (92%)	179 (90%)	14 (7%)	5 (2%)	4	30
31	n	91/161 (56%)	83 (91%)	5 (6%)	3 (3%)	3	25
32	o	138/167 (83%)	112 (81%)	21 (15%)	5 (4%)	3	24
33	c	58/66 (88%)	53 (91%)	4 (7%)	1 (2%)	7	37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	h	171/257 (66%)	123 (72%)	31 (18%)	17 (10%)	0	8
All	All	4833/5936 (81%)	4330 (90%)	412 (8%)	91 (2%)	9	35

All (91) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	r	121	TYR
3	r	124	ILE
5	u	120	VAL
9	Q	138	CYS
21	d	81	SER
26	j	95	MET
26	j	97	ALA
30	m	144	GLN
34	h	77	GLN
34	h	121	PHE
34	h	155	PRO
34	h	158	ARG
34	h	162	THR
34	h	183	ASN
34	h	184	ASN
34	h	204	ASN
2	q	31	VAL
3	r	119	ASP
3	r	146	LYS
4	t	45	HIS
5	u	35	LYS
8	O	10	ASN
8	O	114	VAL
9	Q	122	THR
11	S	53	SER
11	S	71	LYS
19	b	136	ALA
24	a	101	SER
24	a	103	LYS
24	a	105	ARG
30	m	141	ILE
30	m	187	ILE
32	o	81	VAL
34	h	94	VAL
34	h	164	LYS
34	h	191	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	p	131	ASN
2	q	30	ALA
3	r	127	PRO
8	O	155	LEU
9	Q	51	VAL
16	X	43	MET
18	Z	69	THR
20	f	36	ALA
20	f	116	GLN
26	j	105	GLU
26	j	115	ARG
32	o	13	ARG
32	o	15	ILE
34	h	128	GLY
34	h	163	LYS
4	t	60	ALA
4	t	128	MET
7	M	86	PRO
8	O	25	SER
8	O	39	ALA
10	R	134	GLN
13	U	108	ALA
14	V	57	ALA
18	Z	29	LEU
24	a	45	ALA
25	i	103	LEU
28	k	141	PRO
31	n	32	THR
31	n	36	SER
31	n	68	TRP
34	h	161	THR
1	p	122	ARG
3	r	143	ARG
5	u	9	GLN
8	O	2	SER
8	O	11	LYS
9	Q	39	LEU
15	W	56	ILE
19	b	137	LYS
20	f	9	LYS
21	d	238	ALA
32	o	77	ILE

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Mol	Chain	Res	Type
34	h	175	VAL
34	h	206	ALA
30	m	92	VAL
32	o	63	ALA
33	c	23	LYS
34	h	111	ALA
22	e	29	PRO
4	t	61	PRO
3	r	61	VAL
30	m	47	ILE
6	L	167	VAL
15	W	223	PRO
16	X	89	VAL

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	p	262/268 (98%)	260 (99%)	2 (1%)	79	84
2	q	34/49 (69%)	34 (100%)	0	100	100
3	r	113/121 (93%)	113 (100%)	0	100	100
4	t	102/131 (78%)	102 (100%)	0	100	100
5	u	104/132 (79%)	104 (100%)	0	100	100
6	L	217/230 (94%)	217 (100%)	0	100	100
7	M	116/117 (99%)	116 (100%)	0	100	100
8	O	160/160 (100%)	160 (100%)	0	100	100
9	Q	188/195 (96%)	188 (100%)	0	100	100
10	R	125/132 (95%)	124 (99%)	1 (1%)	79	84
11	S	70/73 (96%)	70 (100%)	0	100	100
12	T	87/93 (94%)	87 (100%)	0	100	100
13	U	57/97 (59%)	57 (100%)	0	100	100
14	V	103/112 (92%)	102 (99%)	1 (1%)	73	81

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	W	194/223 (87%)	192 (99%)	2 (1%)	73	81
16	X	137/157 (87%)	137 (100%)	0	100	100
17	Y	104/116 (90%)	104 (100%)	0	100	100
18	Z	143/184 (78%)	143 (100%)	0	100	100
19	b	148/165 (90%)	148 (100%)	0	100	100
20	f	182/211 (86%)	181 (100%)	1 (0%)	86	89
21	d	187/208 (90%)	187 (100%)	0	100	100
22	e	110/111 (99%)	109 (99%)	1 (1%)	75	83
23	g	68/186 (37%)	68 (100%)	0	100	100
24	a	64/96 (67%)	63 (98%)	1 (2%)	58	74
25	i	103/120 (86%)	99 (96%)	4 (4%)	27	50
26	j	55/123 (45%)	54 (98%)	1 (2%)	54	71
27	P	204/205 (100%)	204 (100%)	0	100	100
28	k	108/172 (63%)	108 (100%)	0	100	100
29	l	89/104 (86%)	89 (100%)	0	100	100
30	m	167/179 (93%)	166 (99%)	1 (1%)	84	88
31	n	84/125 (67%)	83 (99%)	1 (1%)	67	78
32	o	118/139 (85%)	117 (99%)	1 (1%)	79	84
33	c	49/53 (92%)	49 (100%)	0	100	100
34	h	138/191 (72%)	133 (96%)	5 (4%)	30	52
All	All	4190/4978 (84%)	4168 (100%)	22 (0%)	85	89

All (22) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	p	29	ILE
1	p	175	ASP
10	R	16	LEU
14	V	44	GLU
15	W	89	VAL
15	W	165	TRP
20	f	72	GLU
22	e	57	ARG
24	a	106	LEU
25	i	69	GLU

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Mol	Chain	Res	Type
25	i	121	VAL
25	i	128	GLU
25	i	133	LEU
26	j	119	GLU
30	m	137	VAL
31	n	48	GLN
32	o	116	LEU
34	h	94	VAL
34	h	103	TYR
34	h	181	TYR
34	h	217	LEU
34	h	222	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
1	p	307	ASN
3	r	13	GLN
6	L	33	HIS
8	O	27	HIS
9	Q	36	HIS
9	Q	47	HIS
14	V	25	HIS
15	W	193	ASN
16	X	11	HIS
16	X	37	ASN
18	Z	64	ASN
20	f	121	GLN
30	m	163	HIS

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
35	E	2017/2319 (86%)	437 (21%)	86 (4%)

All (437) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
35	E	4	C
35	E	5	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	17	C
35	E	25	C
35	E	26	A
35	E	34	G
35	E	35	U
35	E	45	U
35	E	46	U
35	E	47	A
35	E	56	U
35	E	65	A
35	E	74	U
35	E	75	U
35	E	76	G
35	E	82	A
35	E	83	U
35	E	90	A
35	E	111	A
35	E	121	A
35	E	137	C
35	E	143	C
35	E	144	A
35	E	145	U
35	E	157	G
35	E	163	C
35	E	170	C
35	E	184	A
35	E	191	U
35	E	193	U
35	E	194	U
35	E	196	U
35	E	198	U
35	E	199	G
35	E	200	U
35	E	202	C
35	E	203	C
35	E	204	G
35	E	227	U
35	E	228	G
35	E	249	A
35	E	252	G
35	E	253	U
35	E	255	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	257	A
35	E	258	C
35	E	271	C
35	E	284	C
35	E	286	G
35	E	287	A
35	E	288	A
35	E	309	G
35	E	311	G
35	E	313	G
35	E	316	A
35	E	322	G
35	E	325	U
35	E	326	U
35	E	327	U
35	E	329	U
35	E	331	U
35	E	357	C
35	E	362	C
35	E	364	G
35	E	385	G
35	E	386	A
35	E	408	C
35	E	427	U
35	E	447	A
35	E	449	U
35	E	450	A
35	E	463	A
35	E	464	C
35	E	465	G
35	E	471	C
35	E	472	A
35	E	473	G
35	E	486	U
35	E	491	C
35	E	507	A
35	E	520	A
35	E	529	A
35	E	531	A
35	E	532	G
35	E	533	C
35	E	560	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	564	G
35	E	570	U
35	E	571	A
35	E	585	A
35	E	586	A
35	E	590	C
35	E	592	A
35	E	593	G
35	E	596	A
35	E	613	C
35	E	634	A
35	E	648	A
35	E	665	U
35	E	673	A
35	E	674	A
35	E	676	G
35	E	677	G
35	E	678	G
35	E	698	C
35	E	699	C
35	E	702	U
35	E	703	A
35	E	704	A
35	E	705	G
35	E	706	G
35	E	707	C
35	E	708	G
35	E	710	A
35	E	713	G
35	E	714	G
35	E	717	U
35	E	718	A
35	E	720	U
35	E	721	C
35	E	726	C
35	E	727	C
35	E	728	A
35	E	729	C
35	E	730	U
35	E	731	U
35	E	732	C
35	E	733	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	736	U
35	E	737	U
35	E	738	G
35	E	739	G
35	E	740	U
35	E	741	G
35	E	742	A
35	E	745	C
35	E	747	U
35	E	748	G
35	E	749	C
35	E	750	C
35	E	751	C
35	E	752	U
35	E	757	G
35	E	760	C
35	E	762	U
35	E	766	C
35	E	768	G
35	E	769	A
35	E	770	C
35	E	771	A
35	E	772	U
35	E	773	U
35	E	774	C
35	E	775	A
35	E	776	G
35	E	777	A
35	E	778	A
35	E	785	A
35	E	786	A
35	E	789	C
35	E	793	A
35	E	795	U
35	E	796	G
35	E	798	U
35	E	799	A
35	E	804	U
35	E	806	C
35	E	808	G
35	E	809	A
35	E	810	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	811	U
35	E	812	A
35	E	813	U
35	E	814	C
35	E	815	G
35	E	821	C
35	E	822	A
35	E	823	U
35	E	824	G
35	E	825	C
35	E	827	U
35	E	829	C
35	E	830	C
35	E	834	G
35	E	835	G
35	E	836	G
35	E	844	G
35	E	847	U
35	E	848	U
35	E	858	A
35	E	861	A
35	E	871	G
35	E	872	A
35	E	877	A
35	E	880	A
35	E	881	G
35	E	884	A
35	E	885	U
35	E	886	U
35	E	887	C
35	E	888	G
35	E	889	A
35	E	891	U
35	E	892	U
35	E	893	G
35	E	895	A
35	E	901	A
35	E	919	G
35	E	920	A
35	E	921	G
35	E	922	C
35	E	923	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	924	G
35	E	925	C
35	E	935	A
35	E	936	C
35	E	940	U
35	E	941	U
35	E	942	C
35	E	943	G
35	E	944	G
35	E	945	C
35	E	946	U
35	E	947	U
35	E	950	G
35	E	966	C
35	E	969	U
35	E	975	U
35	E	976	U
35	E	977	A
35	E	979	G
35	E	980	G
35	E	983	C
35	E	986	U
35	E	988	U
35	E	989	G
35	E	994	G
35	E	999	U
35	E	1074	C
35	E	1077	C
35	E	1078	U
35	E	1079	U
35	E	1081	G
35	E	1082	U
35	E	1083	G
35	E	1171	C
35	E	1172	C
35	E	1175	A
35	E	1177	C
35	E	1178	U
35	E	1187	C
35	E	1188	C
35	E	1189	A
35	E	1191	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	1192	A
35	E	1193	A
35	E	1194	U
35	E	1195	G
35	E	1197	A
35	E	1207	U
35	E	1208	U
35	E	1211	G
35	E	1221	U
35	E	1247	U
35	E	1268	A
35	E	1270	A
35	E	1295	U
35	E	1301	A
35	E	1339	G
35	E	1340	A
35	E	1356	C
35	E	1359	C
35	E	1360	A
35	E	1361	A
35	E	1363	C
35	E	1375	U
35	E	1524	U
35	E	1541	U
35	E	1542	U
35	E	1543	C
35	E	1544	U
35	E	1545	U
35	E	1546	C
35	E	1547	A
35	E	1559	U
35	E	1560	G
35	E	1561	A
35	E	1606	A
35	E	1618	G
35	E	1626	C
35	E	1627	C
35	E	1628	A
35	E	1631	A
35	E	1638	G
35	E	1653	U
35	E	1659	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	1661	A
35	E	1664	A
35	E	1668	G
35	E	1669	G
35	E	1671	A
35	E	1672	C
35	E	1685	G
35	E	1689	A
35	E	1690	G
35	E	1691	G
35	E	1695	A
35	E	1696	G
35	E	1701	G
35	E	1711	G
35	E	1712	U
35	E	1724	A
35	E	1725	U
35	E	1727	C
35	E	1738	G
35	E	1782	U
35	E	1783	U
35	E	1789	A
35	E	1813	G
35	E	1815	A
35	E	1829	C
35	E	1830	C
35	E	1831	C
35	E	1832	A
35	E	1833	U
35	E	1857	U
35	E	1872	G
35	E	1873	G
35	E	1874	C
35	E	1875	G
35	E	1876	G
35	E	1877	U
35	E	1878	A
35	E	1880	U
35	E	1881	C
35	E	1882	G
35	E	1883	C
35	E	1884	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	1885	U
35	E	1886	G
35	E	1887	U
35	E	1903	A
35	E	1904	U
35	E	1905	U
35	E	1909	U
35	E	1910	G
35	E	1914	U
35	E	1927	A
35	E	1930	U
35	E	1943	G
35	E	1947	U
35	E	1950	G
35	E	1951	A
35	E	1955	U
35	E	1956	C
35	E	1959	C
35	E	1961	A
35	E	1965	U
35	E	1966	C
35	E	1974	C
35	E	1976	C
35	E	1977	G
35	E	1988	U
35	E	1990	U
35	E	1991	C
35	E	1992	A
35	E	1993	G
35	E	1994	U
35	E	2000	C
35	E	2002	A
35	E	2007	A
35	E	2008	A
35	E	2009	C
35	E	2010	G
35	E	2012	C
35	E	2013	U
35	E	2016	U
35	E	2018	U
35	E	2019	C
35	E	2020	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	2021	G
35	E	2022	A
35	E	2030	G
35	E	2032	U
35	E	2033	C
35	E	2034	A
35	E	2048	A
35	E	2049	C
35	E	2050	C
35	E	2051	C
35	E	2052	C
35	E	2053	G
35	E	2054	G
35	E	2060	C
35	E	2061	G
35	E	2063	A
35	E	2064	G
35	E	2068	C
35	E	2070	C
35	E	2071	U
35	E	2072	U
35	E	2075	G
35	E	2077	C
35	E	2087	C
35	E	2090	U
35	E	2091	U
35	E	2092	A
35	E	2097	U
35	E	2099	G
35	E	2102	C
35	E	2103	A
35	E	2107	A
35	E	2108	G
35	E	2118	G
35	E	2135	A
35	E	2153	C
35	E	2165	A
35	E	2214	A
35	E	2216	A
35	E	2217	G
35	E	2218	U
35	E	2225	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	2226	U
35	E	2228	C
35	E	2235	C
35	E	2275	G
35	E	2278	G
35	E	2280	A
35	E	2283	A
35	E	2284	A
35	E	2287	U
35	E	2288	A
35	E	2310	G
35	E	2311	G
35	E	2312	A
35	E	2314	C
35	E	2317	U

All (86) RNA pucker outliers are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	56	U
35	E	68	A
35	E	193	U
35	E	227	U
35	E	325	U
35	E	531	A
35	E	701	C
35	E	702	U
35	E	703	A
35	E	712	U
35	E	713	G
35	E	717	U
35	E	719	G
35	E	727	C
35	E	729	C
35	E	756	G
35	E	765	A
35	E	769	A
35	E	771	A
35	E	774	C
35	E	775	A
35	E	777	A
35	E	785	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	E	788	A
35	E	792	G
35	E	795	U
35	E	797	G
35	E	807	U
35	E	808	G
35	E	810	U
35	E	812	A
35	E	813	U
35	E	814	C
35	E	822	A
35	E	828	G
35	E	829	C
35	E	847	U
35	E	885	U
35	E	890	C
35	E	891	U
35	E	892	U
35	E	918	G
35	E	919	G
35	E	921	G
35	E	922	C
35	E	923	A
35	E	935	A
35	E	939	U
35	E	940	U
35	E	942	C
35	E	968	U
35	E	975	U
35	E	982	G
35	E	988	U
35	E	998	C
35	E	1076	C
35	E	1186	U
35	E	1187	C
35	E	1188	C
35	E	1191	G
35	E	1192	A
35	E	1526	A
35	E	1545	U
35	E	1546	C
35	E	1695	A

*Continued on next page...*

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Mol	Chain	Res	Type
35	E	1712	U
35	E	1872	G
35	E	1875	G
35	E	1876	G
35	E	1882	G
35	E	1886	G
35	E	1903	A
35	E	1904	U
35	E	1913	U
35	E	2006	A
35	E	2017	G
35	E	2020	G
35	E	2048	A
35	E	2049	C
35	E	2050	C
35	E	2051	C
35	E	2052	C
35	E	2152	C
35	E	2213	G
35	E	2227	U
35	E	2234	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 oligosaccharides 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

There are no chain breaks in this entry.

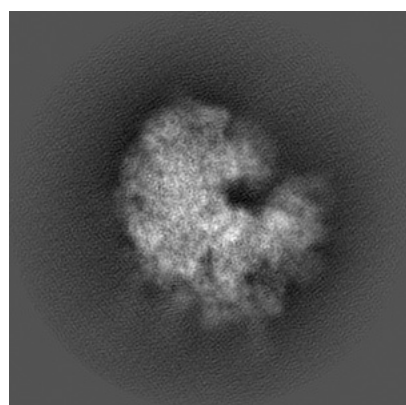
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3844. These allow visual inspection of the internal detail of the map and identification of artifacts.

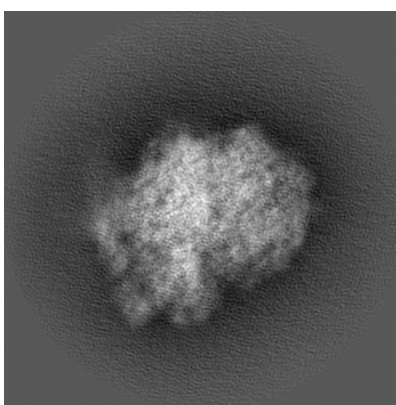
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

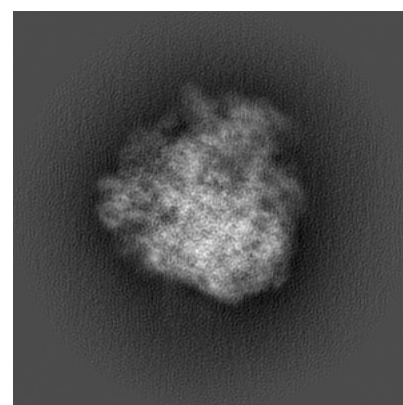
#### 6.1.1 Primary map



X



Y

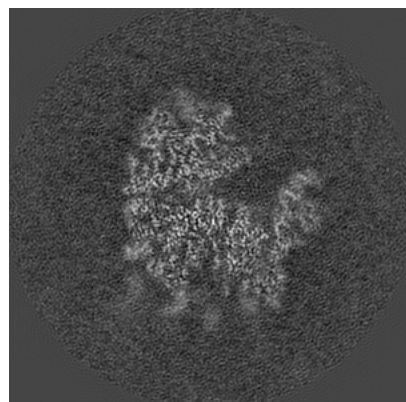


Z

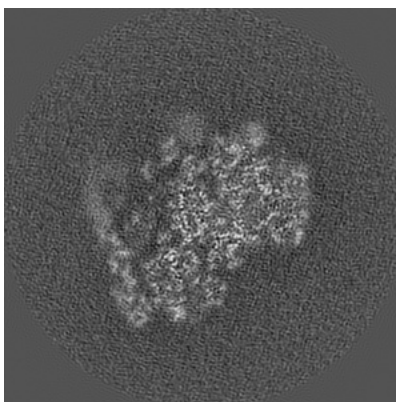
The images above show the map projected in three orthogonal directions.

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

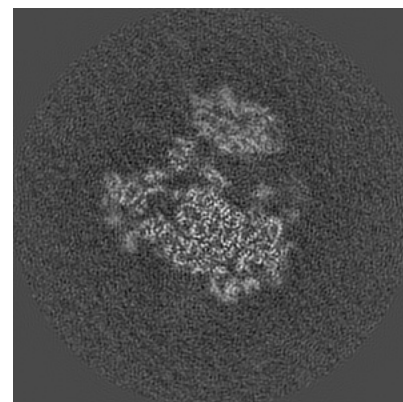
#### 6.2.1 Primary map



X Index: 160



Y Index: 160

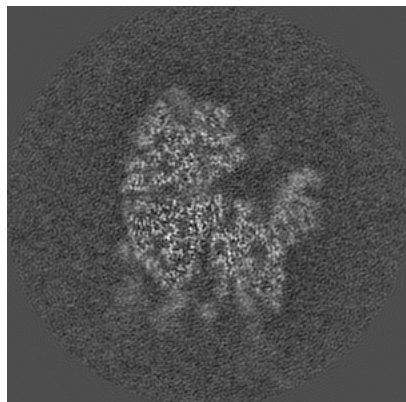


Z Index: 160

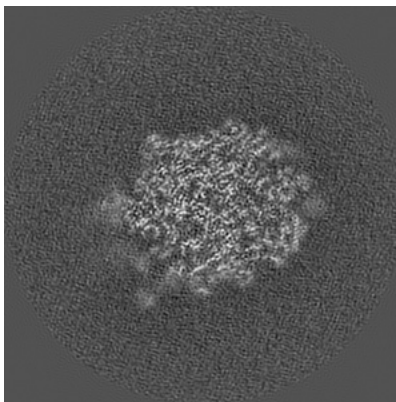
The images above show central slices of the map in three orthogonal directions.

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

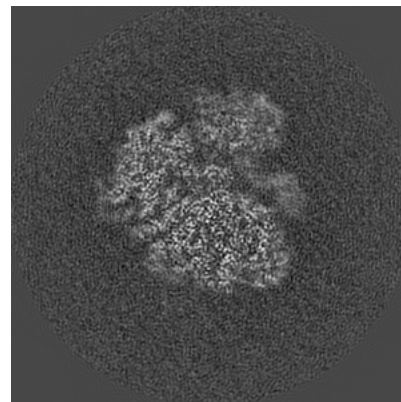
### 6.3.1 Primary map



X Index: 157



Y Index: 134

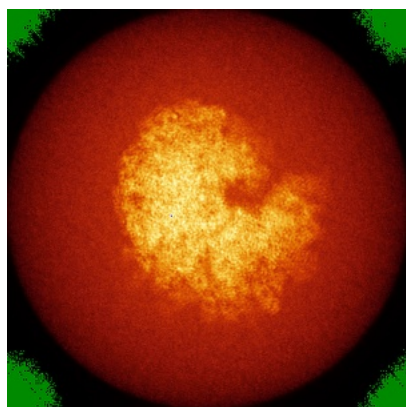


Z Index: 147

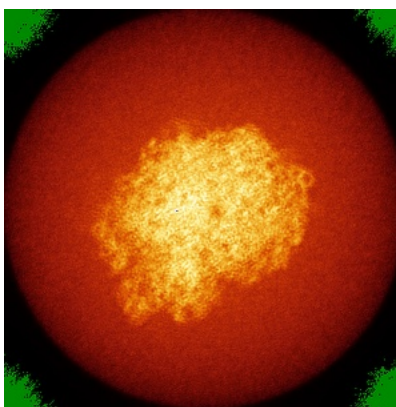
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal standard-deviation projections (False-color) [\(i\)](#)

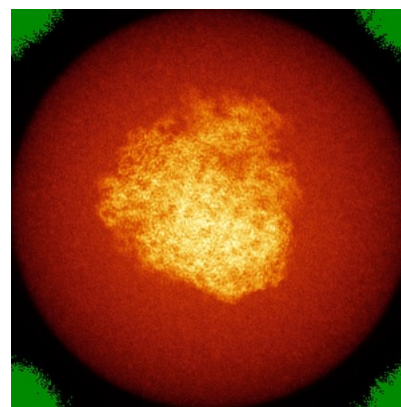
### 6.4.1 Primary map



X



Y



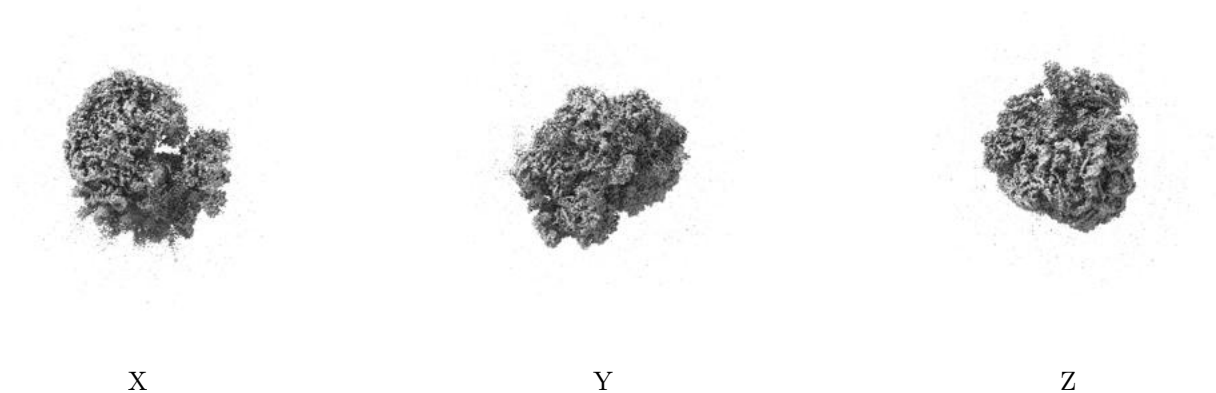
Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.



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

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.0549. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

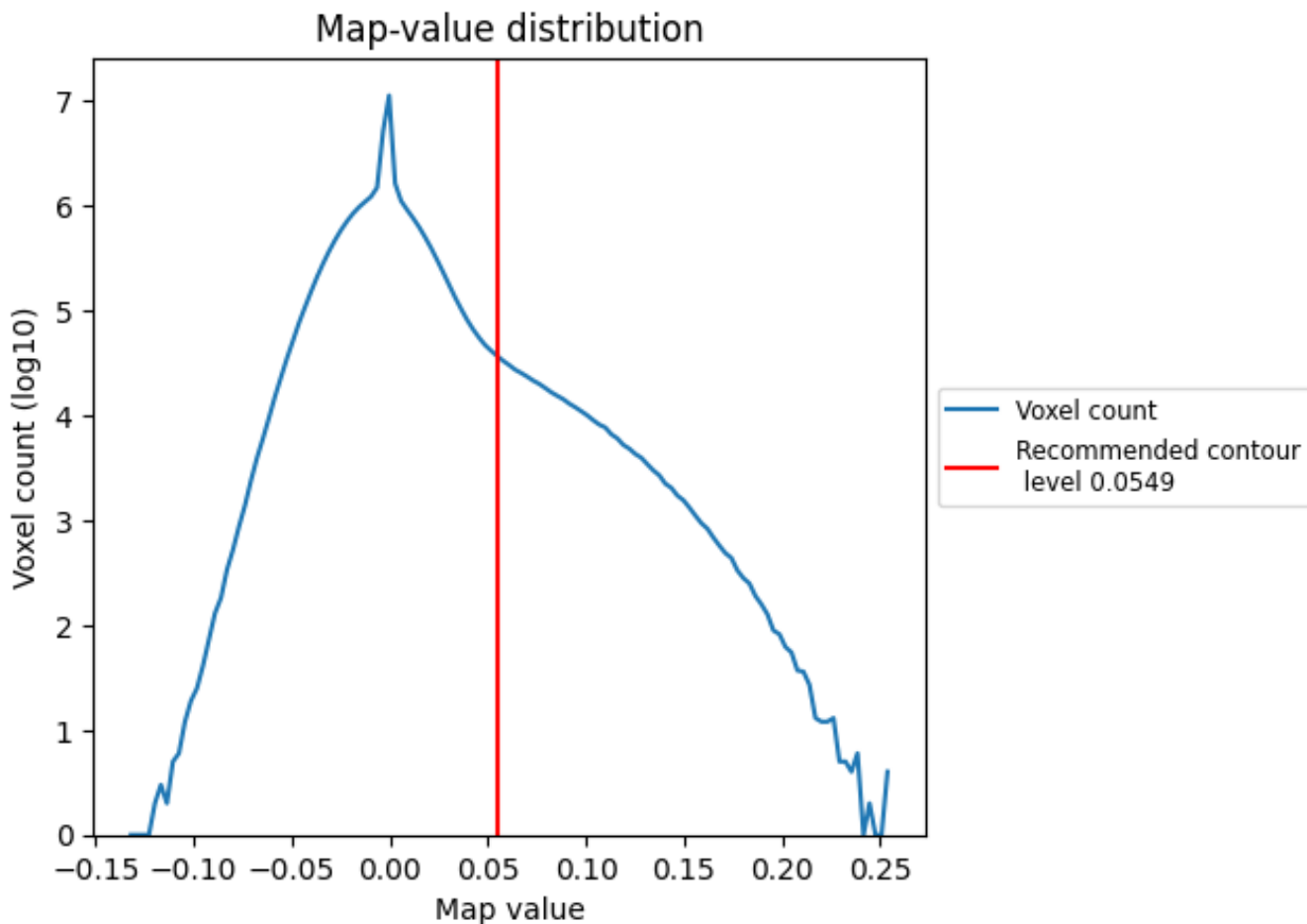
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

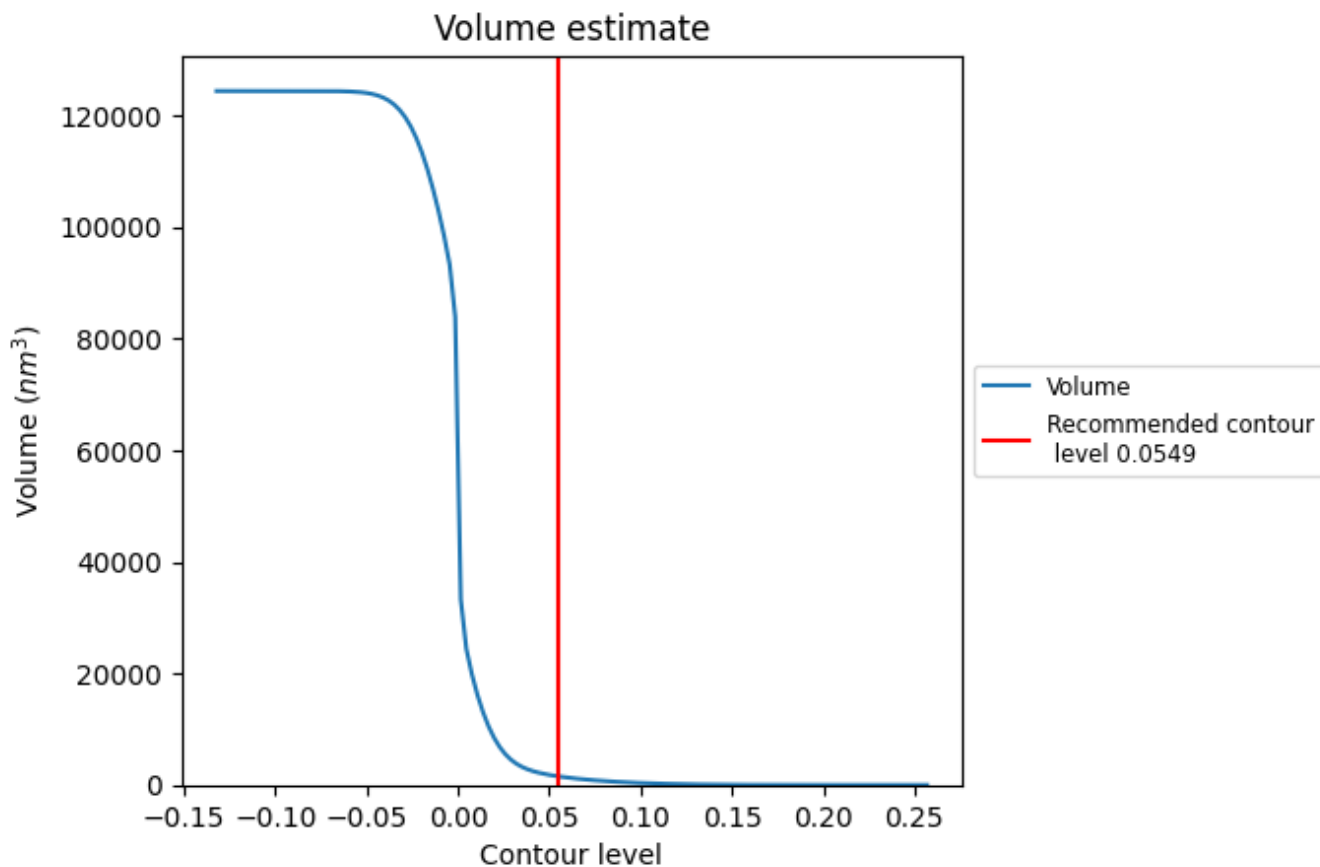
This section contains the results of statistical analysis of the map.

### 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.

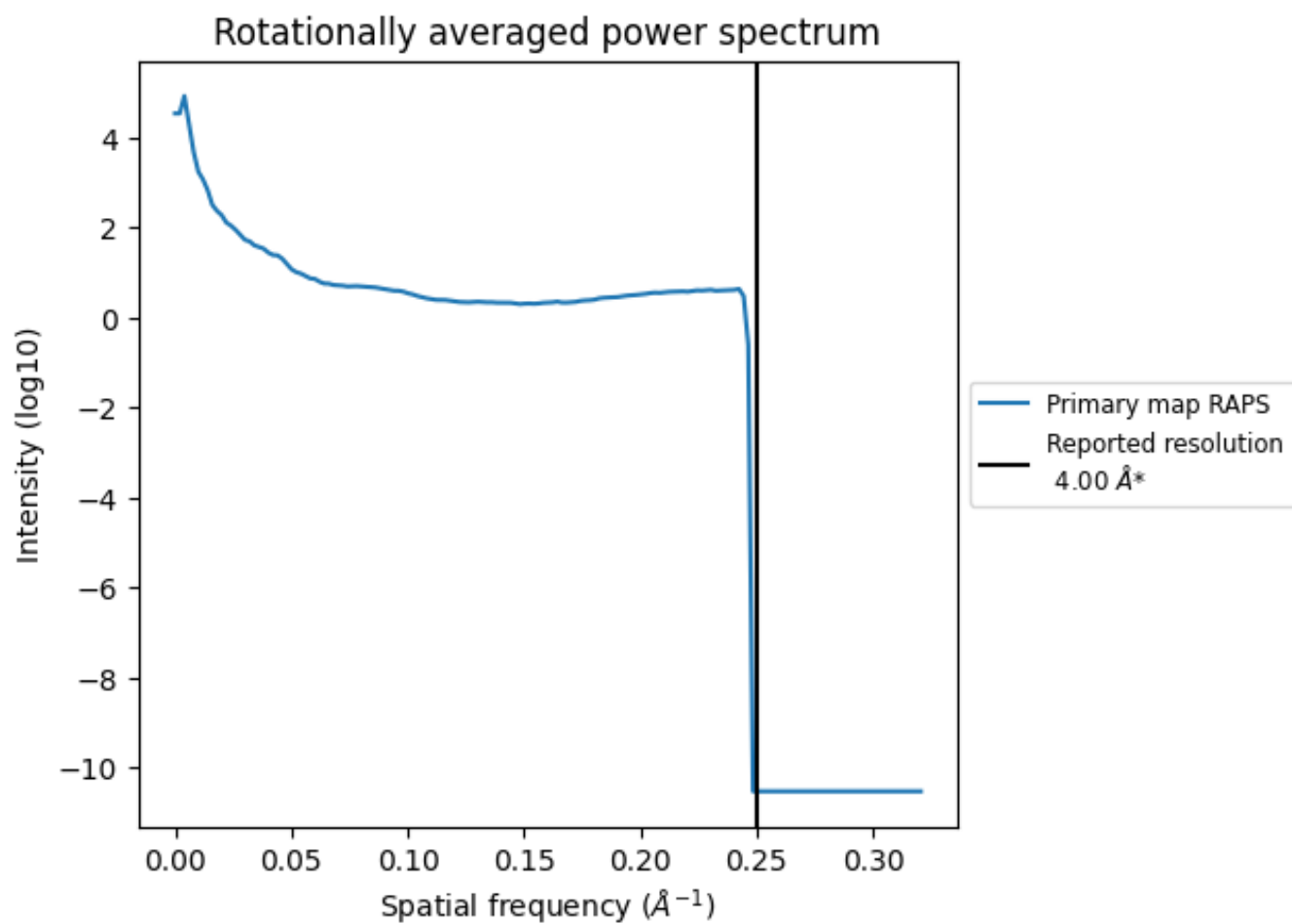
## 7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 1549 nm<sup>3</sup>; this corresponds to an approximate mass of 1400 kDa.

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

### 7.3 Rotationally averaged power spectrum [\(i\)](#)



\*Reported resolution corresponds to spatial frequency of 0.250 Å<sup>-1</sup>

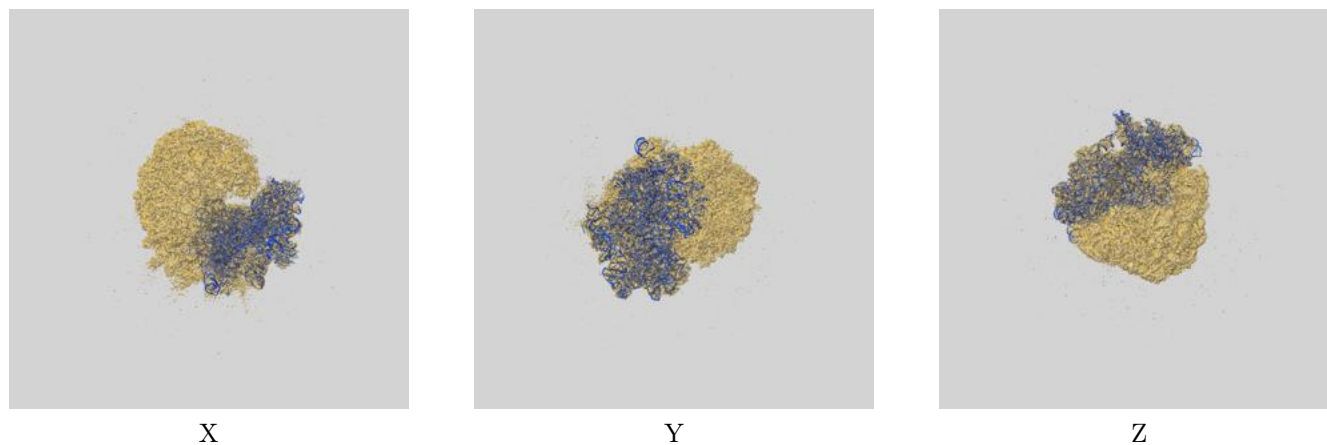
## 8 Fourier-Shell correlation

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

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

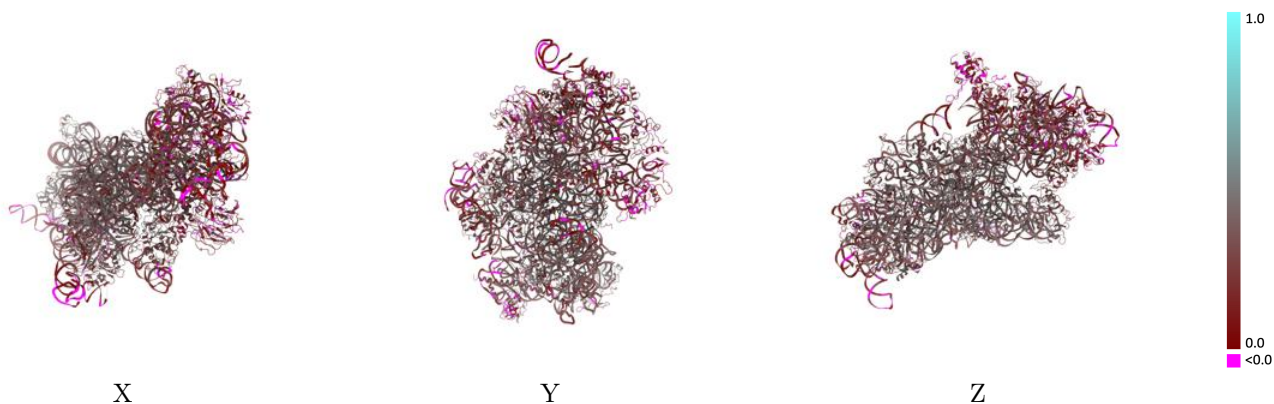
This section contains information regarding the fit between EMDB map EMD-3844 and PDB model 5OPT. Per-residue inclusion information can be found in section 3 on page 11.

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



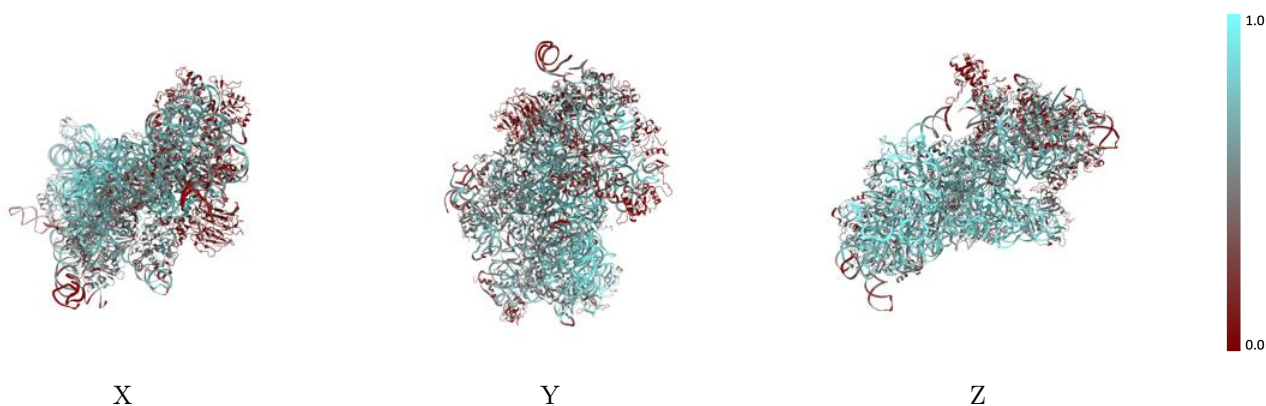
The images above show the 3D surface view of the map at the recommended contour level 0.0549 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



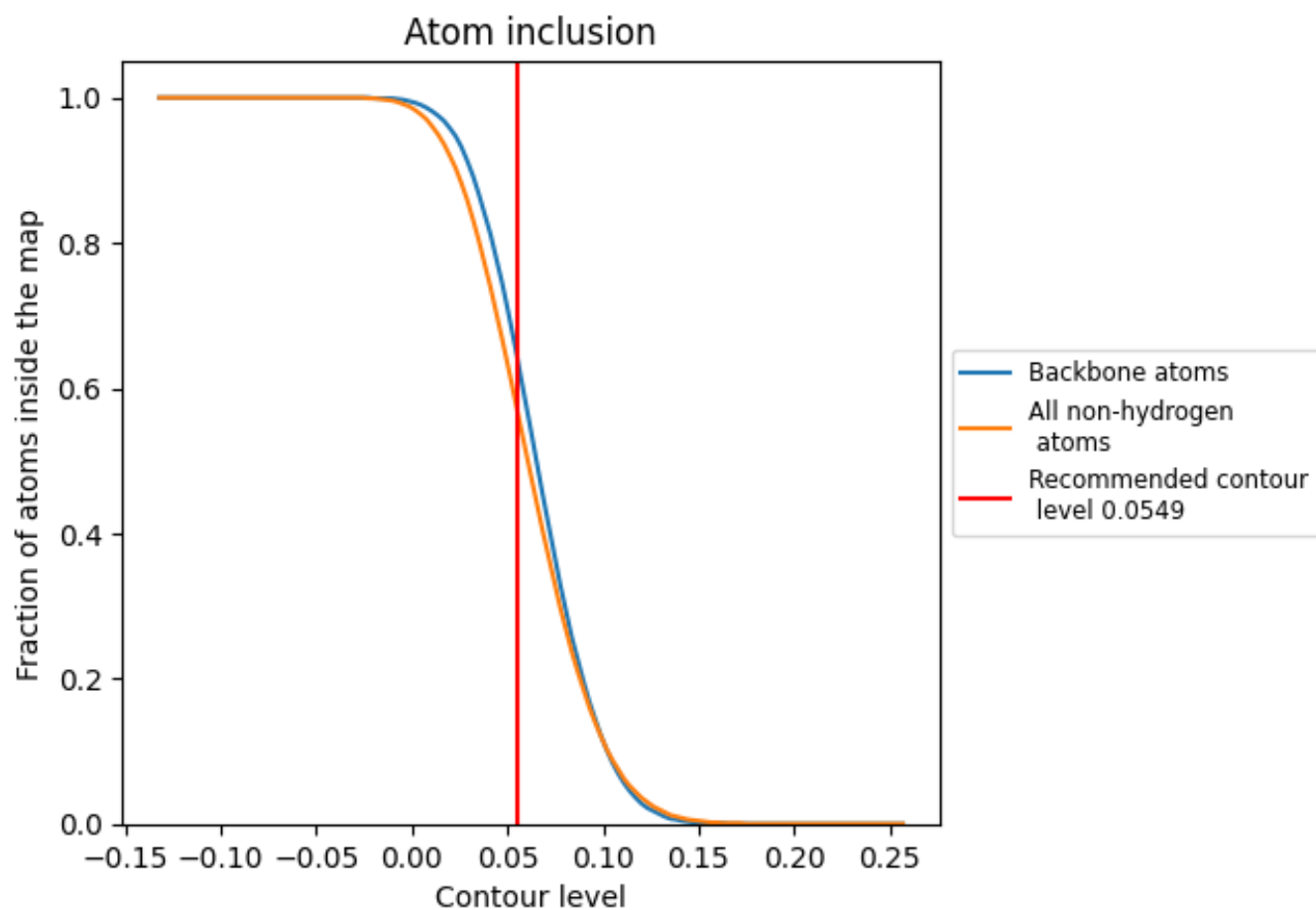
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.0549).

## 9.4 Atom inclusion [i](#)











































































At the recommended contour level, 65% of all backbone atoms, 57% 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 (0.0549) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5720	 0.2840
E	 0.6990	 0.2970
L	 0.5230	 0.3590
M	 0.5610	 0.3500
O	 0.3580	 0.2240
P	 0.5280	 0.2910
Q	 0.5310	 0.3060
R	 0.5200	 0.3280
S	 0.4420	 0.3200
T	 0.5040	 0.3360
U	 0.2610	 0.2090
V	 0.4920	 0.3140
W	 0.5510	 0.3340
X	 0.5150	 0.3370
Y	 0.5850	 0.3250
Z	 0.5970	 0.3600
a	 0.2980	 0.1260
b	 0.5500	 0.3240
c	 0.4760	 0.2910
d	 0.5230	 0.3260
e	 0.5470	 0.3480
f	 0.5210	 0.3120
g	 0.5170	 0.3330
h	 0.2970	 0.1270
i	 0.1110	 0.0940
j	 0.1860	 0.1000
k	 0.3770	 0.2550
l	 0.2940	 0.2240
m	 0.2930	 0.2600
n	 0.2960	 0.2120
o	 0.3840	 0.1690
p	 0.1710	 0.1680
q	 0.3770	 0.2290
r	 0.3920	 0.2380
t	 0.2790	 0.1820
u	 0.3230	 0.1910

