

Supplementary Table S1. *Pseudomonas* sp. JY-Q non-conserved protein-coding genes against strain S16.

No	Synonym	Start	End	Strand	Length(aa)	Gene	Product
1	AA098_00065	11963	13255	-	430	-	beta-lactamase
2	AA098_00070	13416	14312	-	298	-	LysR family transcriptional regulator
3	AA098_00075	14541	15377	+	278	-	hydrolase
4	AA098_00080	15540	17429	+	629	-	hypothetical protein
5	AA098_00085	17446	18795	+	449	-	hypothetical protein
6	AA098_00090	18886	20016	+	376	-	hypothetical protein
7	AA098_00095	20019	22367	+	782	-	RND transporter
8	AA098_00100	22511	24217	+	568	-	long-chain fatty acid--CoA ligase
9	AA098_00105	24480	25388	+	302	-	LysR family transcriptional regulator
10	AA098_00110	25455	27158	-	567	-	choline transporter
11	AA098_00115	27557	28747	+	396	-	2Fe-2S ferredoxin
12	AA098_00120	28758	30203	+	481	-	aldehyde dehydrogenase
13	AA098_00125	30216	31601	+	461	-	rubredoxin-NAD(+) reductase
14	AA098_00130	31611	32939	+	442	-	oxidoreductase
15	AA098_00135	32936	33307	+	123	-	ethanolamine utilization protein EutQ
16	AA098_00140	33389	34495	+	368	-	MFS transporter
17	AA098_00145	34643	34936	+	97	-	GABA permease
18	AA098_00170	40500	40880	-	126	-	glutamine synthetase
19	AA098_00180	42200	42826	+	208	-	hypothetical protein
20	AA098_00410	92110	93138	+	342	-	transcriptional regulator
21	AA098_00570	122757	122960	-	67	-	hypothetical protein
22	AA098_00640	136349	137191	+	280	-	hypothetical protein
23	AA098_00755	167465	167827	+	120	-	AraC family transcriptional regulator
24	AA098_00785	177041	179116	+	691	-	Sel1 domain protein repeat-containing protein
25	AA098_00930	206499	206933	+	144	-	hypothetical protein
26	AA098_01330	298345	299013	-	222	-	NAD(P)H dehydrogenase
27	AA098_01335	299152	300006	+	284	-	LysR family transcriptional regulator

28	AA098_01360	305295	305816	+	173	-	transposase
29	AA098_01365	305846	306649	+	267	-	integrase
30	AA098_01570	346052	346588	+	178	-	fimbrial protein
31	AA098_01655	370813	372963	+	716	-	hypothetical protein
32	AA098_01680	379552	384237	+	1561	-	hypothetical protein
33	AA098_01885	432817	433089	-	90	tatA	preprotein translocase subunit SecA
34	AA098_01920	437348	441976	-	1542	-	hypothetical protein
35	AA098_02050	469714	470205	-	163	-	hypothetical protein
36	AA098_02080	476864	477667	-	267	-	integrase
37	AA098_02085	477697	478218	-	173	-	transposase
38	AA098_02145	490106	490381	-	91	-	hypothetical protein
39	AA098_02150	490678	491166	-	162	-	hypothetical protein
40	AA098_02155	491499	491897	-	132	-	transposase
41	AA098_02260	516587	517270	+	227	-	hypothetical protein
42	AA098_02545	587108	587575	+	155	-	hypothetical protein
43	AA098_02630	603375	605006	+	543	-	NAD synthetase
44	AA098_02645	609436	609795	+	119	-	hypothetical protein
45	AA098_02650	609867	610163	+	98	-	hypothetical protein
46	AA098_02655	610384	610677	-	97	-	hypothetical protein
47	AA098_02660	610894	611289	+	131	-	hypothetical protein
48	AA098_02665	611293	611955	+	220	-	hypothetical protein
49	AA098_02680	614042	615100	-	352	-	hypothetical protein
50	AA098_02685	615370	615576	-	68	-	hypothetical protein
51	AA098_02690	615882	616445	-	187	-	hypothetical protein
52	AA098_02695	618352	619656	-	434	-	hypothetical protein
53	AA098_02700	620065	622320	+	751	-	hypothetical protein
54	AA098_02705	622479	622982	-	167	-	hypothetical protein
55	AA098_02710	622979	625090	-	703	-	hypothetical protein

56	AA098_02715	625090	627441	-	783	-	hypothetical protein
57	AA098_02720	627519	628781	-	420	-	hypothetical protein
58	AA098_02765	637658	637906	-	82	-	hypothetical protein
59	AA098_02870	657874	658677	-	267	-	integrase
60	AA098_02875	658707	659228	-	173	-	transposase
61	AA098_02920	667625	668344	-	239	-	cobalt-precorrin-6X reductase
62	AA098_02955	675368	676051	+	227	-	hypothetical protein
63	AA098_02960	676103	676792	+	229	-	hypothetical protein
64	AA098_02965	676785	677441	+	218	-	hypothetical protein
65	AA098_03165	717273	717599	+	108	-	hypothetical protein
66	AA098_03235	731257	731628	-	123	-	hypothetical protein
67	AA098_03240	731907	732344	-	145	-	transposase
68	AA098_03245	732392	732760	-	122	-	transposase
69	AA098_03250	732841	733110	-	89	-	hypothetical protein
70	AA098_03255	733345	735051	-	568	-	diguanylate cyclase
71	AA098_03265	736299	737327	-	342	-	transcriptional regulator
72	AA098_03270	737365	737769	-	134	-	hypothetical protein
73	AA098_03280	739177	739545	+	122	-	transposase
74	AA098_03285	739593	740030	+	145	-	transposase
75	AA098_03290	740069	741733	+	554	-	hypothetical protein
76	AA098_03295	741903	743774	+	623	-	ATPase
77	AA098_03300	743755	744690	+	311	-	hypothetical protein
78	AA098_03305	744687	745955	+	422	-	hypothetical protein
79	AA098_03310	746534	746788	+	84	-	hypothetical protein
80	AA098_03315	747099	747386	+	95	-	hypothetical protein
81	AA098_03320	747438	747860	+	140	-	hypothetical protein
82	AA098_03325	747959	750493	+	844	-	ATP-dependent helicase
83	AA098_03330	750650	751114	-	154	-	Fis family transcriptional regulator

84	AA098_03335	751397	751738	+	113	-	hypothetical protein
85	AA098_03340	751894	752457	+	187	-	hypothetical protein
86	AA098_03345	752537	753265	+	242	-	serine/threonine protein phosphatase
87	AA098_03350	753323	753682	+	119	-	hypothetical protein
88	AA098_03355	754130	754471	+	113	-	hypothetical protein
89	AA098_03360	755153	755770	+	205	-	XRE family transcriptional regulator
90	AA098_03365	755767	756588	+	273	-	hypothetical protein
91	AA098_03370	756662	757018	+	118	-	hypothetical protein
92	AA098_03375	757496	759322	+	608	-	hypothetical protein
93	AA098_03380	759724	760107	+	127	-	hypothetical protein
94	AA098_03385	760251	761159	+	302	-	hypothetical protein
95	AA098_03390	762565	762933	+	122	-	transcriptional regulator
96	AA098_03395	763127	763357	+	76	-	hypothetical protein
97	AA098_03400	763420	763629	+	69	-	hypothetical protein
98	AA098_03420	766141	767628	-	495	-	hypothetical protein
99	AA098_03430	768039	768488	-	149	-	hypothetical protein
100	AA098_03435	768504	768839	+	111	-	hypothetical protein
101	AA098_03440	768850	769170	+	106	-	hypothetical protein
102	AA098_03445	769816	770286	-	156	-	hypothetical protein
103	AA098_03450	770570	771946	+	458	-	hypothetical protein
104	AA098_03455	772039	772398	+	119	-	transposase
105	AA098_03475	775677	777143	-	488	-	integrase
106	AA098_03480	777121	777747	-	208	-	hypothetical protein
107	AA098_03485	777744	779846	-	700	-	integrase
108	AA098_03490	779830	782190	-	786	-	hypothetical protein
109	AA098_03500	784488	785006	-	172	-	hypothetical protein
110	AA098_03555	795182	796180	-	332	-	fimbrial protein
111	AA098_03560	796207	798585	-	792	-	usher CupC3

112	AA098_03565	798831	799553	-	240	-	molecular chaperone
113	AA098_03570	799611	800195	-	194	-	fimbrial protein
114	AA098_03575	800858	801505	-	215	-	LuxR family transcriptional regulator
115	AA098_03580	801570	804791	-	1073	-	chemotaxis protein CheY
116	AA098_03585	804871	806067	-	398	-	diguanylate phosphodiesterase
117	AA098_03590	806054	808885	-	943	-	histidine kinase
118	AA098_03645	819826	820029	+	67	-	lipoprotein
119	AA098_03650	820046	820498	+	150	-	hypothetical protein
120	AA098_03655	820977	821729	+	250	-	hypothetical protein
121	AA098_03660	822217	824610	+	797	-	ligand-gated channel
122	AA098_03665	824772	825509	+	245	-	hypothetical protein
123	AA098_03670	825611	826486	-	291	-	transcriptional regulator
124	AA098_03675	826606	826866	+	86	-	hypothetical protein
125	AA098_03680	827171	827851	+	226	-	hypothetical protein
126	AA098_03685	828933	831755	+	940	-	hypothetical protein
127	AA098_03690	831755	834217	+	820	-	hypothetical protein
128	AA098_03695	834220	835104	+	294	-	hypothetical protein
129	AA098_03705	838168	838926	+	252	-	hypothetical protein
130	AA098_03710	838923	843359	+	1478	-	hypothetical protein
131	AA098_03715	843369	843896	+	175	-	PLD-like domain protein
132	AA098_03720	843893	846076	+	727	-	hypothetical protein
133	AA098_03725	846212	846601	-	129	-	6-pyruvoyl tetrahydrobiopterin synthase
134	AA098_03730	846652	847284	-	210	-	7-cyano-7-deazaguanine reductase
135	AA098_03735	847281	847985	-	234	-	7-cyano-7-deazaguanine synthase
136	AA098_03740	848014	849069	-	351	-	hypothetical protein
137	AA098_03745	849066	850364	-	432	-	hypothetical protein
138	AA098_03750	850361	851482	-	373	-	hypothetical protein
139	AA098_03755	851479	852414	-	311	-	hypothetical protein

140	AA098_03760	852587	853651	+	354	-	hypothetical protein
141	AA098_03765	853773	854120	+	115	-	hypothetical protein
142	AA098_03780	854887	855129	-	80	-	hypothetical protein
143	AA098_03790	856578	856877	+	99	-	hypothetical protein
144	AA098_03795	856870	857478	+	202	-	amino acid transporter LysE
145	AA098_03800	857507	857785	+	92	-	TnpA protein
146	AA098_03805	858285	858740	+	151	-	transposase
147	AA098_03815	859743	860774	+	343	-	cytochrome oxidase I
148	AA098_03820	861246	861473	-	75	-	preprotein translocase subunit TatA
149	AA098_03830	863401	863856	+	151	-	transposase
150	AA098_03845	864781	866298	+	505	-	transposase
151	AA098_03860	868087	869592	-	501	-	DNA polymerase
152	AA098_03870	871101	873470	+	789	-	carbon monoxide dehydrogenase
153	AA098_03875	873457	874287	+	276	-	hypothetical protein
154	AA098_03880	875571	876908	+	445	-	major facilitator transporter
155	AA098_03885	877115	878296	+	393	-	para-nitrophenol 4-monooxygenase
156	AA098_03890	879618	880367	+	249	-	Asp/Glu racemase
157	AA098_03895	880367	881149	+	260	-	alpha/beta hydrolase
158	AA098_03900	881151	882182	+	343	-	leucyl aminopeptidase
159	AA098_03905	883199	884524	+	441	-	hypothetical protein
160	AA098_03910	884902	886791	+	629	-	chemotaxis protein
161	AA098_03915	887278	888306	+	342	-	transcriptional regulator
162	AA098_03920	888459	889034	-	191	-	recombinase
163	AA098_03925	889261	890235	+	324	-	integrase
164	AA098_03930	890784	891149	+	121	-	hypothetical protein
165	AA098_03935	891519	891980	-	153	-	hypothetical protein
166	AA098_03940	892391	893059	-	222	-	hypothetical protein
167	AA098_03945	893133	893570	-	145	-	transposase

168	AA098_03950	893618	893986	-	122	-	transposase
169	AA098_03955	894067	894336	-	89	-	hypothetical protein
170	AA098_03960	894571	896277	-	568	-	diguanylate cyclase
171	AA098_03965	896314	897879	-	521	-	chemotaxis protein
172	AA098_03970	898115	898483	+	122	-	transposase
173	AA098_03975	898531	898968	+	145	-	transposase
174	AA098_03995	903374	904879	+	501	-	DNA polymerase
175	AA098_04005	905614	906510	+	298	-	LysR family transcriptional regulator
176	AA098_04015	909172	909774	+	200	-	molybdopterin-guanine dinucleotide biosynthesis protein MobA
177	AA098_04020	909781	910812	+	343	-	cytochrome oxidase I
178	AA098_04025	911284	911511	-	75	-	preprotein translocase subunit TatA
179	AA098_04030	911863	912891	+	342	-	transcriptional regulator
180	AA098_04040	913974	914816	-	280	-	transposase
181	AA098_04045	914873	915196	-	107	-	transposase
182	AA098_04055	915961	916284	-	107	-	transposase
183	AA098_04060	916411	917091	+	226	-	hypothetical protein
184	AA098_04070	918896	919186	-	96	-	hypothetical protein
185	AA098_04075	919206	919565	-	119	-	transposase
186	AA098_04080	919603	919815	+	70	-	hypothetical protein
187	AA098_04085	920929	921315	-	128	-	hypothetical protein
188	AA098_04090	921541	922974	-	477	-	aldehyde dehydrogenase
189	AA098_04100	924939	926375	-	478	-	hypothetical protein
190	AA098_04105	926434	926772	-	112	-	hypothetical protein
191	AA098_04110	927078	928082	-	334	-	hypothetical protein
192	AA098_04115	928356	929384	-	342	-	transcriptional regulator
193	AA098_04120	929448	930281	+	277	-	hypothetical protein
194	AA098_04125	930426	931481	-	351	-	ATPase AAA
195	AA098_04130	931481	931696	-	71	-	AlpA family transcriptional regulator

196	AA098_04135	932177	937078	-	1633	-	damage-inducible protein
197	AA098_04140	937219	938424	-	401	-	integrase
198	AA098_04190	949204	950007	-	267	-	integrase
199	AA098_04195	950037	950558	-	173	-	transposase
200	AA098_04305	974601	974999	+	132	-	ribosome-binding factor A
201	AA098_04490	1016935	1017546	+	203	-	sulfite oxidase
202	AA098_04585	1042319	1043083	+	254	-	membrane protein
203	AA098_04655	1058307	1058462	+	51	-	cyanide insensitive terminal oxidase, subunit III
204	AA098_04665	1059789	1060496	-	235	-	LuxR family transcriptional regulator
205	AA098_04715	1071402	1072226	+	274	-	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
206	AA098_04755	1078645	1079580	+	311	-	MerR family transcriptional regulator
207	AA098_04765	1080242	1080670	-	142	-	histidine kinase
208	AA098_04795	1084779	1088003	+	1074	-	hypothetical protein
209	AA098_04965	1120841	1121293	+	150	-	hypothetical protein
210	AA098_05390	1214684	1215043	+	119	-	pilus assembly protein PilZ
211	AA098_05525	1248806	1249420	+	204	-	3-beta hydroxysteroid dehydrogenase
212	AA098_05625	1270781	1270993	-	70	-	helicase
213	AA098_05630	1270986	1272467	-	493	-	diguanylate cyclase
214	AA098_05635	1272680	1273129	+	149	-	lipoprotein
215	AA098_05650	1275125	1276807	-	560	-	5'-nucleotidase
216	AA098_05795	1307390	1308340	+	316	-	transposase
217	AA098_05855	1324633	1324836	+	67	-	Fe-S protein
218	AA098_05915	1334767	1336572	-	601	-	sodium:proton antiporter
219	AA098_05940	1341422	1341841	+	139	-	histidine kinase
220	AA098_05945	1341921	1342202	+	93	-	hypothetical protein
221	AA098_05970	1346969	1347511	-	180	-	hypothetical protein
222	AA098_05975	1347549	1348472	-	307	-	hypothetical protein
223	AA098_05980	1348469	1348795	-	108	-	hypothetical protein

224	AA098_05990	1349796	1350074	-	92	-	hypothetical protein
225	AA098_06445	1452188	1453255	+	355	-	hypothetical protein
226	AA098_06470	1457003	1457212	+	69	-	hypothetical protein
227	AA098_06600	1480541	1481881	+	446	-	cytochrome C
228	AA098_06605	1481886	1482377	+	163	-	sorbitol dehydrogenase
229	AA098_06610	1482374	1484632	+	752	-	dehydrogenase
230	AA098_06730	1505656	1505916	-	86	-	hypothetical protein
231	AA098_06755	1510338	1510757	+	139	-	Sel1 domain-containing protein repeat-containing protein
232	AA098_06775	1518076	1518807	+	243	-	GntR family transcriptional regulator
233	AA098_06780	1518902	1520176	+	424	-	MFS transporter
234	AA098_06785	1520201	1521034	+	277	-	membrane protein
235	AA098_06795	1523074	1523391	-	105	-	molecular chaperone
236	AA098_06830	1526412	1527215	-	267	-	integrase
237	AA098_06835	1527245	1527766	-	173	-	transposase
238	AA098_06850	1534946	1535308	+	120	-	nitrite reductase
239	AA098_06865	1537348	1538616	-	422	-	hypothetical protein
240	AA098_06995	1564816	1565181	+	121	-	hypothetical protein
241	AA098_07020	1570697	1571176	+	159	-	adhesin
242	AA098_07025	1571267	1573777	+	836	-	pilus assembly protein PapC
243	AA098_07030	1573894	1574628	+	244	-	pilus assembly protein
244	AA098_07035	1574625	1575821	+	398	-	hypothetical protein
245	AA098_07040	1575851	1576477	+	208	-	LuxR family transcriptional regulator
246	AA098_07045	1576487	1579729	+	1080	-	histidine kinase
247	AA098_07055	1580827	1581312	+	161	-	hypothetical protein
248	AA098_07060	1581382	1581876	+	164	-	hypothetical protein
249	AA098_07065	1581952	1584420	+	822	-	pilus assembly protein PapC
250	AA098_07070	1584472	1585245	+	257	-	pilus assembly protein
251	AA098_07075	1585257	1586420	+	387	-	hypothetical protein

252	AA098_07080	1586494	1586646	-	50	-	membrane protein
253	AA098_07085	1586938	1587117	+	59	-	carbon storage regulator
254	AA098_07110	1592408	1593598	-	396	-	integrase
255	AA098_07120	1594310	1595044	-	244	-	serine/threonine protein phosphatase
256	AA098_07125	1595041	1595361	-	106	-	hypothetical protein
257	AA098_07130	1595358	1596092	-	244	-	hypothetical protein
258	AA098_07135	1596229	1596588	-	119	-	hypothetical protein
259	AA098_07140	1596776	1597003	-	75	-	hypothetical protein
260	AA098_07145	1596993	1597184	-	63	-	carbon storage regulator CsrA
261	AA098_07150	1597234	1598067	-	277	-	transposase
262	AA098_07155	1598064	1598312	-	82	-	hypothetical protein
263	AA098_07160	1598386	1599171	-	261	-	prophage antirepressor
264	AA098_07165	1599279	1599551	-	90	-	hypothetical protein
265	AA098_07170	1599589	1599981	-	130	-	LuxR family transcriptional regulator
266	AA098_07180	1601440	1601715	+	91	-	hypothetical protein
267	AA098_07185	1601712	1602017	+	101	-	hypothetical protein
268	AA098_07190	1602014	1602250	+	78	-	hypothetical protein
269	AA098_07195	1602247	1602546	+	99	-	hypothetical protein
270	AA098_07200	1602534	1603280	+	248	-	hypothetical protein
271	AA098_07205	1603277	1603588	+	103	-	hypothetical protein
272	AA098_07210	1603585	1604148	+	187	-	hypothetical protein
273	AA098_07215	1604145	1604375	+	76	-	phage-like protein
274	AA098_07220	1604372	1605139	+	255	-	hypothetical protein
275	AA098_07225	1605126	1605944	+	272	-	DNA replication protein DnaC
276	AA098_07230	1605941	1607353	+	470	-	helicase DnaB
277	AA098_07235	1607340	1607852	+	170	-	hypothetical protein
278	AA098_07240	1607849	1608148	+	99	-	hypothetical protein
279	AA098_07250	1609096	1609344	+	82	-	hypothetical protein

280	AA098_07255	1609742	1609930	-	62	-	hypothetical protein
281	AA098_07260	1610347	1610580	-	77	-	hypothetical protein
282	AA098_07265	1610866	1611198	+	110	-	holin
283	AA098_07270	1611265	1611495	-	76	-	hypothetical protein
284	AA098_07275	1612075	1612380	+	101	-	HNH endonuclease
285	AA098_07280	1612526	1613023	+	165	-	terminase
286	AA098_07285	1613026	1614693	+	555	-	terminase
287	AA098_07290	1614751	1616700	+	649	-	phage capsid protein
288	AA098_07295	1616754	1616972	+	72	-	hypothetical protein
289	AA098_07300	1616987	1618354	+	455	-	poly(3-hydroxybutyrate) depolymerase
290	AA098_07305	1618341	1619267	+	308	-	phage portal protein
291	AA098_07310	1619264	1619587	+	107	-	hypothetical protein
292	AA098_07315	1619590	1619928	+	112	-	head-tail adaptor protein
293	AA098_07320	1619921	1620406	+	161	-	hypothetical protein
294	AA098_07325	1620403	1620771	+	122	-	hypothetical protein
295	AA098_07330	1620834	1621325	+	163	-	phage major tail protein
296	AA098_07335	1621329	1621805	+	158	-	phage tail assembly protein
297	AA098_07340	1622206	1623234	-	342	-	transcriptional regulator
298	AA098_07345	1623226	1623999	+	257	-	hypothetical protein
299	AA098_07350	1624038	1626494	+	818	-	tail tape measure protein
300	AA098_07355	1626491	1626973	+	160	-	hypothetical protein
301	AA098_07360	1627033	1627278	-	81	-	hypothetical protein
302	AA098_07365	1627357	1627776	+	139	-	hypothetical protein
303	AA098_07370	1627748	1630846	+	1032	-	hypothetical protein
304	AA098_07375	1630861	1631319	+	152	-	membrane protein
305	AA098_07380	1631431	1633680	+	749	-	hypothetical protein
306	AA098_07385	1633731	1634759	-	342	-	transcriptional regulator
307	AA098_07390	1635084	1635572	+	162	-	glycoside hydrolase

308	AA098_07395	1635569	1636090	+	173	-	hypothetical protein
309	AA098_07400	1636125	1636541	-	138	-	hypothetical protein
310	AA098_07525	1668864	1669907	+	347	-	hypothetical protein
311	AA098_07530	1669956	1671206	+	416	-	hypothetical protein
312	AA098_07535	1671255	1672256	+	333	-	hemolytic protein HlpA
313	AA098_07540	1672260	1673285	+	341	-	hypothetical protein
314	AA098_07545	1673352	1674563	+	403	-	hypothetical protein
315	AA098_07550	1674556	1675590	+	344	-	UDP-glucose 4-epimerase
316	AA098_07555	1675595	1676713	+	372	-	capsular biosynthesis protein
317	AA098_07560	1676736	1677866	+	376	-	UDP-N-acetylglucosamine 2-epimerase
318	AA098_07565	1677881	1679131	+	416	-	glycosyl transferase
319	AA098_07570	1679131	1680096	+	321	-	NAD-dependent dehydratase
320	AA098_07575	1680093	1681103	+	336	-	glycosyl transferase
321	AA098_07580	1681169	1683166	+	665	-	membrane protein
322	AA098_07585	1683311	1684381	+	356	-	spore coat protein
323	AA098_07590	1684378	1685283	+	301	-	dTDP-4-dehydrorhamnose reductase
324	AA098_07595	1685280	1686161	+	293	-	glucose-1-phosphate thymidyltransferase
325	AA098_07600	1686998	1694536	+	2512	-	beta-ketoacyl synthase
326	AA098_07605	1694546	1695898	+	450	-	8-amino-7-oxononanoate synthase
327	AA098_07610	1695908	1696363	-	151	-	transposase
328	AA098_07615	1696722	1697765	-	347	-	phytanoyl-CoA dioxygenase
329	AA098_07620	1697769	1699913	-	714	-	capsular biosynthesis protein
330	AA098_07625	1699913	1700479	-	188	-	GCN5 family acetyltransferase
331	AA098_07630	1700484	1702031	-	515	-	sulfatase
332	AA098_07635	1702039	1702815	-	258	-	short-chain dehydrogenase
333	AA098_07640	1702812	1704131	-	439	-	capsule biosynthesis protein CapA
334	AA098_07645	1704071	1706092	-	673	-	capsular biosynthesis protein
335	AA098_07650	1706394	1707266	-	290	-	phosphotransferase

336	AA098_07660	1710279	1711211	+	310	-	arabinose 5-phosphate isomerase
337	AA098_07665	1711368	1712669	+	433	-	hypothetical protein
338	AA098_07670	1712725	1713288	-	187	-	3-deoxy-D-manno-octulosonate 8-phosphate phosphatase
339	AA098_07675	1714030	1714872	-	280	-	2-dehydro-3-deoxyphosphooctonate aldolase
340	AA098_07685	1718557	1719648	-	363	-	sugar transporter
341	AA098_07690	1719641	1720747	-	368	-	ABC transporter permease
342	AA098_07695	1720801	1721454	-	217	-	ABC transporter ATP-binding protein
343	AA098_07705	1722703	1723350	-	215	-	phosphate ABC transporter permease
344	AA098_07710	1724003	1724806	+	267	-	hypothetical protein
345	AA098_07715	1725005	1725280	-	91	-	hypothetical protein
346	AA098_07740	1730013	1730756	-	247	-	hypothetical protein
347	AA098_07830	1746407	1747357	+	316	-	transposase
348	AA098_07905	1761741	1762625	+	294	-	LysR family transcriptional regulator
349	AA098_07910	1762665	1763414	-	249	-	oxidoreductase
350	AA098_08035	1787128	1788120	-	330	-	hypothetical protein
351	AA098_08070	1790419	1791483	-	354	-	hypothetical protein
352	AA098_08075	1791526	1794033	-	835	-	ferrous iron transporter B
353	AA098_08080	1794269	1799482	-	1737	-	hypothetical protein
354	AA098_08085	1799506	1800783	-	425	-	hypothetical protein
355	AA098_08090	1801040	1802884	+	614	-	hypothetical protein
356	AA098_08095	1802944	1803840	+	298	-	hypothetical protein
357	AA098_08105	1804938	1806110	+	390	-	hypothetical protein
358	AA098_08110	1806099	1807127	-	342	-	transcriptional regulator
359	AA098_08115	1807152	1807355	-	67	-	hypothetical protein
360	AA098_08120	1807392	1807598	+	68	-	hypothetical protein
361	AA098_08125	1807595	1809880	+	761	-	hypothetical protein
362	AA098_08130	1810000	1811028	+	342	-	transcriptional regulator
363	AA098_08135	1811031	1811552	+	173	-	hypothetical protein

364	AA098_08140	1811629	1815618	+	1329	-	hypothetical protein
365	AA098_08145	1815823	1817847	+	674	-	hypothetical protein
366	AA098_08150	1818034	1820175	+	713	-	membrane protein
367	AA098_08155	1820235	1821731	+	498	-	hypothetical protein
368	AA098_08160	1821737	1822372	-	211	-	pilus assembly protein
369	AA098_08165	1822537	1823034	-	165	-	fimbrial protein
370	AA098_08220	1834241	1834426	+	61	-	hypothetical protein
371	AA098_08345	1859517	1859918	+	133	-	cupin
372	AA098_08470	1883672	1884850	+	392	-	integrase
373	AA098_08565	1903002	1904645	-	547	-	hypothetical protein
374	AA098_08570	1904671	1905945	-	424	-	hypothetical protein
375	AA098_08695	1936749	1938059	+	436	-	type IV secretion protein Rhs
376	AA098_08720	1942964	1945108	-	714	-	HAD family hydrolase
377	AA098_08725	1945505	1945768	+	87	-	hypothetical protein
378	AA098_08755	1952076	1952324	-	82	-	hypothetical protein
379	AA098_08765	1953010	1954107	+	365	-	RND transporter MFP subunit
380	AA098_08770	1954104	1957187	+	1027	-	acriflavine resistance protein B
381	AA098_08775	1957241	1957978	-	245	-	GntR family transcriptional regulator
382	AA098_08780	1958072	1959586	-	504	-	DSBA oxidoreductase
383	AA098_08785	1959576	1960721	-	381	-	hemolysin D
384	AA098_08790	1960928	1962208	-	426	-	multidrug transporter
385	AA098_08795	1962450	1963160	-	236	-	AraC family transcriptional regulator
386	AA098_08800	1963330	1963716	-	128	-	cupin
387	AA098_08805	1963825	1964649	-	274	-	AraC family transcriptional regulator
388	AA098_08810	1964669	1965112	-	147	-	GNAT family acetyltransferase
389	AA098_08825	1967514	1968983	-	489	-	hypothetical protein
390	AA098_08835	1970141	1972801	-	886	-	hypothetical protein
391	AA098_08975	2011590	2011964	-	124	-	membrane protein

392	AA098_08995	2014231	2014662	+	143	-	peptidase M15
393	AA098_09025	2023119	2023982	-	287	-	transposase
394	AA098_09030	2023979	2024272	-	97	-	transposase
395	AA098_09245	2075117	2075644	+	175	-	copper-binding protein
396	AA098_09300	2085460	2085768	+	102	-	chorismate mutase
397	AA098_09310	2086519	2086710	+	63	-	hypothetical protein
398	AA098_09315	2087337	2087900	+	187	-	TetR family transcriptional regulator
399	AA098_09320	2087897	2088874	+	325	-	hypothetical protein
400	AA098_09325	2088950	2089816	-	288	-	oxaloacetate decarboxylase
401	AA098_09330	2089949	2090557	-	202	-	fumarate hydrolyase
402	AA098_09345	2093006	2093932	+	308	-	LysR family transcriptional regulator
403	AA098_09350	2094309	2094794	+	161	-	conserved secreted protein with internal repeat protein
404	AA098_09360	2095693	2096586	-	297	-	LysR family transcriptional regulator
405	AA098_09390	2101875	2102396	+	173	-	ProQ activator of osmoprotectant transporter prop
406	AA098_09500	2124061	2124360	-	99	-	copper resistance protein CopB
407	AA098_09535	2131899	2136401	+	1500	-	hypothetical protein
408	AA098_09540	2136486	2140931	+	1481	-	leucine-rich repeat-containing protein
409	AA098_09570	2147232	2147435	+	67	-	hypothetical protein
410	AA098_09580	2148216	2148410	+	64	-	hypothetical protein
411	AA098_09605	2150085	2150573	-	162	-	monovalent cation/H ⁺ antiporter subunit E
412	AA098_09640	2157934	2158926	+	330	-	AraC family transcriptional regulator
413	AA098_09645	2159008	2159388	+	126	-	antibiotic biosynthesis monooxygenase
414	AA098_09705	2172477	2172572	-	31	-	membrane protein
415	AA098_09720	2176696	2177235	+	179	-	phosphoglycerate mutase
416	AA098_09785	2189265	2189579	-	104	-	Cro/C1 family transcriptional regulator
417	AA098_09910	2214524	2215321	+	265	-	acyl-CoA thioesterase
418	AA098_10075	2250444	2250656	-	70	-	DNA-binding protein
419	AA098_10080	2250881	2251198	-	105	-	hypothetical protein

420	AA098_10085	2251252	2251734	-	160	-	methyltransferase
421	AA098_10090	2251731	2252126	-	131	-	hypothetical protein
422	AA098_10100	2252664	2253038	-	124	-	hypothetical protein
423	AA098_10105	2253123	2253311	-	62	-	hypothetical protein
424	AA098_10115	2254186	2254911	-	241	-	hypothetical protein
425	AA098_10120	2254908	2255153	-	81	-	hypothetical protein
426	AA098_10125	2255217	2255816	-	199	-	hypothetical protein
427	AA098_10135	2256985	2257533	-	182	-	single-stranded DNA-binding protein
428	AA098_10140	2257542	2258213	-	223	-	exodeoxyribonuclease X
429	AA098_10145	2258210	2259076	-	288	-	ATPase AAA
430	AA098_10150	2259354	2259548	-	64	-	hypothetical protein
431	AA098_10155	2259545	2259775	-	76	-	hypothetical protein
432	AA098_10160	2259772	2260026	-	84	-	hypothetical protein
433	AA098_10165	2260047	2260232	-	61	-	hypothetical protein
434	AA098_10170	2260229	2260588	-	119	-	hypothetical protein
435	AA098_10175	2260887	2261081	-	64	-	hypothetical protein
436	AA098_10180	2261108	2261674	-	188	-	hypothetical protein
437	AA098_10185	2261753	2262271	-	172	-	hypothetical protein
438	AA098_10190	2262648	2262956	-	102	-	hypothetical protein
439	AA098_10195	2263013	2263249	-	78	-	hypothetical protein
440	AA098_10200	2263354	2263575	-	73	-	hypothetical protein
441	AA098_10205	2263652	2264128	-	158	-	hypothetical protein
442	AA098_10210	2264115	2265260	-	381	-	peptidase
443	AA098_10215	2265476	2265772	-	98	-	prophage PSPPH03, Cro/Ci family transcriptional regulator
444	AA098_10220	2265793	2266020	-	75	-	prophage PssSM-02
445	AA098_10225	2266017	2266238	-	73	-	peptidase
446	AA098_10230	2266241	2266459	-	72	-	hypothetical protein
447	AA098_10240	2266685	2267308	-	207	-	cl repressor protein

448	AA098_10245	2267596	2267793	+	65	-	repressor
449	AA098_10255	2268032	2268211	+	59	-	hypothetical protein
450	AA098_10260	2268299	2269162	+	287	-	transporter
451	AA098_10265	2269159	2269641	+	160	-	hypothetical protein
452	AA098_10270	2269638	2269874	+	78	-	hypothetical protein
453	AA098_10275	2269871	2270647	+	258	-	hypothetical protein
454	AA098_10280	2270644	2271405	+	253	-	Replication protein P
455	AA098_10285	2271551	2271778	+	75	-	hypothetical protein
456	AA098_10290	2271778	2272275	+	165	-	hypothetical protein
457	AA098_10295	2272340	2272735	+	131	-	hypothetical protein
458	AA098_10305	2273295	2273606	+	103	-	hypothetical protein
459	AA098_10310	2273597	2273899	+	100	-	hypothetical protein
460	AA098_10315	2273896	2274255	+	119	-	endodeoxyribonuclease RusA
461	AA098_10320	2274395	2274940	+	181	-	phage-like protein
462	AA098_10330	2275460	2275783	+	107	-	peptidase M48, Ste24p
463	AA098_10335	2275785	2276048	+	87	-	hypothetical protein
464	AA098_10340	2276260	2276712	+	150	-	proteasome subunit beta
465	AA098_10360	2279100	2280518	+	472	-	prophage PSSB64-02, structural protein
466	AA098_10365	2280519	2281565	+	348	-	head morphogenesis protein
467	AA098_10370	2281683	2282402	+	239	-	hypothetical protein
468	AA098_10375	2282413	2283360	+	315	-	major capsid protein
469	AA098_10380	2283404	2284021	+	205	-	hypothetical protein
470	AA098_10385	2284061	2284453	+	130	-	protein singed
471	AA098_10390	2284456	2284839	+	127	-	glutamate 5-kinase
472	AA098_10395	2284839	2285219	+	126	-	phage protein
473	AA098_10400	2285216	2285638	+	140	-	prophage PSSB64-02
474	AA098_10405	2285704	2286867	+	387	-	hypothetical protein
475	AA098_10410	2286946	2287407	+	153	-	prophage PSSB64-02

476	AA098_10415	2287437	2287682	+	81	-	hypothetical protein
477	AA098_10425	2288528	2289514	+	328	-	hypothetical protein
478	AA098_10430	2289511	2290011	+	166	-	hypothetical protein
479	AA098_10435	2290102	2290386	+	94	-	hypothetical protein
480	AA098_10440	2290422	2290745	+	107	-	hypothetical protein
481	AA098_10445	2290807	2294994	+	1395	-	tail tape measure protein
482	AA098_10450	2295016	2295438	+	140	-	hypothetical protein
483	AA098_10455	2295426	2295641	-	71	-	hypothetical protein
484	AA098_10480	2300193	2302442	+	749	-	hypothetical protein
485	AA098_10485	2303129	2303617	+	162	-	glycoside hydrolase
486	AA098_10495	2304119	2305309	-	396	-	integrase
487	AA098_10505	2306845	2307153	+	102	-	peptidase
488	AA098_10580	2322429	2322962	+	177	-	spore coat protein
489	AA098_10620	2331323	2332495	-	390	-	MFS transporter
490	AA098_10630	2333524	2337711	+	1395	-	leucine-rich repeat-containing protein
491	AA098_10685	2351592	2351819	-	75	-	hypothetical protein
492	AA098_10730	2358603	2359499	-	298	-	LysR family transcriptional regulator
493	AA098_10735	2359617	2360807	+	396	-	MFS transporter
494	AA098_10745	2363313	2367734	+	1473	-	leucine-rich repeat-containing protein
495	AA098_10750	2367832	2372322	+	1496	-	hypothetical protein
496	AA098_10850	2391702	2392199	+	165	-	acetyltransferase
497	AA098_10855	2392356	2392790	-	144	-	blue copper protein
498	AA098_10860	2392808	2393596	-	262	-	histidinol phosphatase
499	AA098_10900	2402009	2402554	+	181	-	2'-5' RNA ligase
500	AA098_10970	2415713	2417110	+	465	-	hypothetical protein
501	AA098_10975	2417103	2417492	+	129	-	hypothetical protein
502	AA098_11055	2430516	2431208	-	230	-	deoxyribonuclease
503	AA098_11060	2431215	2431457	-	80	-	hypothetical protein

504	AA098_11065	2431678	2432502	-	274	-	formate transporter
505	AA098_11070	2432567	2433007	-	146	-	cyanate hydratase
506	AA098_11075	2433209	2435083	+	624	-	Fis family transcriptional regulator
507	AA098_11120	2443573	2443785	-	70	-	hypothetical protein
508	AA098_11185	2453461	2454498	-	345	-	diguanylate cyclase
509	AA098_11190	2454568	2454786	+	72	-	hypothetical protein
510	AA098_11195	2454866	2455351	+	161	-	membrane protein
511	AA098_11200	2455397	2456113	+	238	-	dehydrogenase
512	AA098_11210	2457254	2457517	-	87	-	hypothetical protein
513	AA098_11215	2457669	2457911	-	80	-	hypothetical protein
514	AA098_11220	2458387	2458605	-	72	-	hypothetical protein
515	AA098_11225	2458782	2459498	+	238	-	hypothetical protein
516	AA098_11230	2459647	2460060	+	137	-	thiol-disulfide oxidoreductase
517	AA098_11235	2460045	2460605	+	186	-	GTP cyclohydrolase
518	AA098_11240	2460641	2461099	+	152	-	hypothetical protein
519	AA098_11245	2461123	2462208	-	361	-	4-oxalomesaconate tautomerase
520	AA098_11250	2462211	2462927	-	238	-	hypothetical protein
521	AA098_11255	2462924	2463658	-	244	-	GlcNAc-PI de-N-acetylase
522	AA098_11260	2463818	2465011	+	397	-	LysR family transcriptional regulator
523	AA098_11265	2465026	2466273	-	415	-	porin
524	AA098_11270	2466405	2467667	-	420	-	protocatechuate 3,4-dioxygenase
525	AA098_11275	2467689	2469038	-	449	-	4-hydroxybenzoate transporter
526	AA098_11285	2470378	2472789	-	803	-	ligand-gated channel protein
527	AA098_11290	2473043	2473699	+	218	-	phosphohydrolase
528	AA098_11295	2473728	2474891	-	387	-	ATP-binding protein
529	AA098_11300	2475038	2475529	+	163	-	integral membrane protein
530	AA098_11320	2479352	2479837	+	161	-	hypothetical protein
531	AA098_11325	2479862	2480839	-	325	-	3-phosphoglycerate dehydrogenase

532	AA098_11345	2484055	2484357	+	100	-	hypothetical protein
533	AA098_11350	2484437	2485159	+	240	-	hypothetical protein
534	AA098_11370	2487837	2488076	+	79	-	allantoate amidohydrolase
535	AA098_11375	2488067	2488342	-	91	-	hypothetical protein
536	AA098_11390	2492283	2492462	-	59	-	hypothetical protein
537	AA098_11465	2508441	2511212	-	923	-	antibiotic biosynthesis protein
538	AA098_11480	2514825	2519624	-	1599	-	leucine-rich repeat-containing protein
539	AA098_11545	2531956	2532330	-	124	-	hypothetical protein
540	AA098_11550	2532530	2533120	-	196	-	heme oxygenase
541	AA098_11645	2558046	2558303	-	85	-	PAAR repeat-containing protein
542	AA098_11650	2558300	2559193	-	297	-	hypothetical protein
543	AA098_11655	2559198	2560655	-	485	-	hypothetical protein
544	AA098_11660	2560764	2561108	-	114	-	hypothetical protein
545	AA098_11665	2561109	2561336	+	75	-	hypothetical protein
546	AA098_11670	2561662	2564652	-	996	-	hypothetical protein
547	AA098_11675	2564985	2565269	-	94	-	hypothetical protein
548	AA098_11680	2565434	2565862	+	142	-	membrane protein
549	AA098_11685	2565859	2567151	+	430	-	sorbose dehydrogenase
550	AA098_11700	2570313	2571077	-	254	-	hypothetical protein
551	AA098_11705	2571394	2571903	-	169	-	MarR family transcriptional regulator
552	AA098_11710	2572099	2572617	+	172	-	membrane protein
553	AA098_11725	2574092	2574742	-	216	-	hypothetical protein
554	AA098_11860	2610097	2611041	+	314	-	sugar ABC transporter substrate-binding protein
555	AA098_11870	2613595	2614533	-	312	-	LysR family transcriptional regulator
556	AA098_11875	2614682	2615509	+	275	-	2-pyrone-4,6-dicarboxylate hydrolase
557	AA098_11880	2615687	2616427	+	246	-	3-oxoacyl-ACP reductase
558	AA098_11930	2627332	2627943	-	203	-	amino acid transporter LysE
559	AA098_11975	2636841	2637074	+	77	-	hypothetical protein

560	AA098_12025	2649429	2650607	+	392	-	integrase
561	AA098_12035	2651707	2653773	-	688	-	chemotaxis protein CheY
562	AA098_12060	2658948	2659466	+	172	-	methyltransferase
563	AA098_12095	2666660	2667712	-	350	-	ornithine cyclodeaminase
564	AA098_12125	2672678	2673568	+	296	-	hypothetical protein
565	AA098_12140	2675608	2676078	+	156	-	FAD/FMN-containing dehydrogenase
566	AA098_12150	2676436	2676762	-	108	-	hypothetical protein
567	AA098_12165	2678395	2679114	-	239	-	lipoprotein
568	AA098_12170	2679196	2679447	-	83	-	hypothetical protein
569	AA098_12185	2682104	2683060	-	318	-	AraC family transcriptional regulator
570	AA098_12190	2683209	2685293	-	694	-	5-oxoprolinase
571	AA098_12195	2685307	2687052	-	581	-	hydantoinase
572	AA098_12220	2692242	2692604	-	120	-	hypothetical protein
573	AA098_12385	2731068	2731304	+	78	-	hypothetical protein
574	AA098_12390	2731826	2732401	-	191	-	hypothetical protein
575	AA098_12395	2732770	2734539	-	589	-	hypothetical protein
576	AA098_12400	2734634	2735476	-	280	-	hypothetical protein
577	AA098_12405	2735473	2736048	-	191	-	hypothetical protein
578	AA098_12430	2746732	2747409	+	225	-	peptidase S8 and S53 subtilisin kexin sedolisin
579	AA098_12500	2762782	2763015	-	77	-	hypothetical protein
580	AA098_12570	2777098	2777556	-	152	-	hypothetical protein
581	AA098_12690	2803880	2804728	-	282	-	leucyl-tRNA synthetase
582	AA098_12700	2806111	2807667	-	518	-	dolichyl-phosphate-mannose-protein mannosyltransferase
583	AA098_12705	2807672	2807944	-	90	-	Lipid A biosynthesis, N-terminal
584	AA098_12710	2807941	2808684	-	247	-	dolichol-phosphate mannosyltransferase
585	AA098_12715	2808719	2809693	-	324	-	protein CapI
586	AA098_12725	2811263	2812309	+	348	-	SAM-dependent methyltransferase
587	AA098_12760	2819625	2820671	+	348	-	dienelactone hydrolase

588	AA098_12775	2823621	2824040	-	139	-	integrase
589	AA098_12780	2824216	2824689	-	157	-	peroxiredoxin
590	AA098_12785	2825249	2825518	-	89	-	hypothetical protein
591	AA098_12790	2825554	2825811	+	85	-	hypothetical protein
592	AA098_12800	2826870	2828234	-	454	-	chemotaxis protein CheY
593	AA098_12805	2828432	2829430	+	332	-	cytochrome B6
594	AA098_12815	2831236	2832639	+	467	-	ATPase
595	AA098_12820	2832712	2833188	-	158	-	GCN5 family acetyltransferase
596	AA098_12825	2833400	2834101	-	233	-	membrane protein
597	AA098_12830	2834171	2835136	-	321	-	thiamine biosynthesis protein ApbE
598	AA098_12835	2835126	2837306	-	726	-	nitric oxide synthase
599	AA098_12840	2837332	2837802	-	156	-	Tat pathway signal protein
600	AA098_12845	2837894	2838217	-	107	-	hypothetical protein
601	AA098_12850	2838350	2839009	+	219	-	transcriptional regulator
602	AA098_12855	2839006	2840340	+	444	-	histidine kinase
603	AA098_12870	2842952	2843428	-	158	-	50S ribosomal protein L21
604	AA098_12875	2843476	2844060	-	194	-	TetR family transcriptional regulator
605	AA098_12880	2844173	2845063	-	296	-	LysR family transcriptional regulator
606	AA098_12890	2846355	2846681	+	108	-	antibiotic biosynthesis monooxygenase
607	AA098_12895	2846994	2847749	-	251	-	hypothetical protein
608	AA098_12900	2847929	2848840	-	303	-	magnesium transporter
609	AA098_12905	2848844	2850424	-	526	-	carboxylate--amine ligase
610	AA098_12910	2850519	2851613	+	364	-	GNAT family acetyltransferase
611	AA098_12915	2851705	2851959	-	84	-	glutaredoxin
612	AA098_12925	2852621	2853442	+	273	-	AraC family transcriptional regulator
613	AA098_12935	2854491	2855492	+	333	-	quinone oxidoreductase
614	AA098_12940	2855723	2856238	-	171	-	hypothetical protein
615	AA098_12955	2857730	2858209	+	159	-	MerR family transcriptional regulator

616	AA098_12960	2858225	2859151	-	308	-	acetoacetate decarboxylase (ADC)
617	AA098_12965	2859266	2860069	-	267	-	thiamine biosynthesis protein ThiJ
618	AA098_12975	2862200	2862808	+	202	-	short-chain dehydrogenase
619	AA098_12980	2863151	2864044	-	297	-	LysR family transcriptional regulator
620	AA098_12985	2864126	2865178	-	350	-	alpha/beta hydrolase
621	AA098_12990	2865228	2866292	-	354	-	alpha/beta hydrolase
622	AA098_12995	2866294	2867067	-	257	-	carboxymuconolactone decarboxylase
623	AA098_13000	2867297	2867764	-	155	-	cupin
624	AA098_13005	2867824	2868816	-	330	-	aldehyde oxidase
625	AA098_13010	2868841	2869431	-	196	-	flavodoxin
626	AA098_13015	2869428	2870417	-	329	-	aldehyde oxidase
627	AA098_13020	2870762	2871661	-	299	-	LysR family transcriptional regulator
628	AA098_13025	2871755	2872702	+	315	-	2-dehydropantoate 2-reductase
629	AA098_13030	2872699	2873097	+	132	-	glyoxalase
630	AA098_13035	2873094	2873549	+	151	-	acyl dehydratase
631	AA098_13040	2873546	2874778	+	410	-	CoA-transferase
632	AA098_13045	2874775	2875593	+	272	aroE	shikimate dehydrogenase
633	AA098_13050	2875598	2876035	+	145	-	3-dehydroquinate dehydratase
634	AA098_13055	2876176	2877573	+	465	-	major facilitator transporter
635	AA098_13060	2877965	2878222	+	85	-	hypothetical protein
636	AA098_13065	2878275	2878967	-	230	-	RNA polymerase subunit sigma-70
637	AA098_13070	2878964	2879512	-	182	-	RNA polymerase sigma factor
638	AA098_13075	2879616	2880143	-	175	-	hypothetical protein
639	AA098_13080	2880361	2880648	+	95	-	hypothetical protein
640	AA098_13095	2882154	2882354	-	66	-	hypothetical protein
641	AA098_13110	2883455	2884255	+	266	-	lipopolysaccharide biosynthesis protein
642	AA098_13120	2884831	2885073	-	80	-	hypothetical protein
643	AA098_13130	2886028	2886753	+	241	-	serine/threonine protein phosphatase

644	AA098_13215	2904920	2905228	-	102	-	hypothetical protein
645	AA098_13310	2931583	2931789	+	68	-	hypothetical protein
646	AA098_13315	2931936	2932487	-	183	-	hypothetical protein
647	AA098_13325	2932791	2933906	+	371	-	ADP-ribosylglycohydrolase
648	AA098_13335	2934669	2934944	-	91	-	hypothetical protein
649	AA098_13345	2935737	2936435	+	232	-	hypothetical protein
650	AA098_13350	2936603	2936800	-	65	-	hypothetical protein
651	AA098_13355	2936827	2937138	-	103	-	hypothetical protein
652	AA098_13365	2937883	2938308	-	141	-	hypothetical protein
653	AA098_13380	2940275	2940499	-	74	-	hypothetical protein
654	AA098_13385	2940789	2941805	+	338	-	hypothetical protein
655	AA098_13390	2941806	2942501	+	231	-	hypothetical protein
656	AA098_13395	2942574	2943602	+	342	-	transcriptional regulator
657	AA098_13420	2950923	2951336	+	137	-	glucan biosynthesis protein
658	AA098_13425	2951821	2952573	+	250	-	RHS family protein
659	AA098_13430	2952586	2952933	+	115	-	hypothetical protein
660	AA098_13445	2960341	2960550	-	69	-	hypothetical protein
661	AA098_13455	2961931	2962341	+	136	-	hypothetical protein
662	AA098_13460	2963595	2964317	+	240	-	hypothetical protein
663	AA098_13470	2966668	2967333	+	221	-	cytoplasmic protein
664	AA098_13500	2972933	2973805	-	290	-	AraC family transcriptional regulator
665	AA098_13505	2973982	2974809	+	275	-	2-deoxy-D-gluconate 3-dehydrogenase
666	AA098_13510	2974806	2976521	+	571	-	3-oxosteroid 1-dehydrogenase
667	AA098_13515	2976521	2976847	+	108	-	NIPSNAP family containing protein
668	AA098_13520	2976892	2978277	+	461	-	4-hydroxybenzoate transporter
669	AA098_13575	2990086	2990628	+	180	-	DNA-binding protein
670	AA098_13635	3005533	3006057	+	174	-	serine acetyltransferase
671	AA098_13660	3010490	3011242	+	250	-	glycosyl transferase

672	AA098_13745	3031176	3032558	-	460	-	hypothetical protein
673	AA098_13760	3035673	3035879	+	68	-	hypothetical protein
674	AA098_13820	3048060	3049157	-	365	-	N-ethylmaleimide reductase
675	AA098_13850	3055923	3056822	-	299	-	LysR family transcriptional regulator
676	AA098_13885	3066943	3067608	+	221	-	hypothetical protein
677	AA098_13890	3067837	3069102	+	421	-	cytosine permease
678	AA098_13895	3069099	3070316	+	405	-	Fis family transcriptional regulator
679	AA098_13905	3071576	3072523	-	315	-	ornithine cyclodeaminase
680	AA098_13910	3072520	3073509	-	329	-	hypothetical protein
681	AA098_13915	3073603	3074208	-	201	-	hypothetical protein
682	AA098_13920	3074397	3075341	-	314	-	Pdr/VanB family oxidoreductase
683	AA098_13925	3075338	3076768	-	476	-	amidohydrolase
684	AA098_13930	3076807	3077535	-	242	-	ABC transporter ATP-binding protein
685	AA098_13935	3077621	3078424	-	267	-	nitrate ABC transporter ATPase
686	AA098_13940	3078535	3079560	-	341	-	Rieske (2Fe-2S) protein
687	AA098_13945	3079599	3080624	-	341	-	bicyclomycin resistance protein
688	AA098_13950	3081305	3082087	+	260	-	membrane protein
689	AA098_13955	3082280	3083863	-	527	-	sulfurtransferase
690	AA098_13960	3083860	3084468	-	202	-	cysteine dioxygenase
691	AA098_13965	3084765	3085703	+	312	-	sulfonate ABC transporter substrate-binding protein
692	AA098_13970	3085762	3087081	+	439	-	monooxygenase
693	AA098_13975	3087179	3088279	-	366	-	alkanesulfonate monooxygenase
694	AA098_13980	3088420	3090039	-	539	-	ABC transporter ATP-binding protein
695	AA098_13985	3090036	3090944	-	302	-	ABC transporter permease
696	AA098_13990	3090946	3091896	-	316	-	peptide ABC transporter permease
697	AA098_13995	3091893	3093512	-	539	-	ABC transporter substrate-binding protein
698	AA098_14000	3093586	3094380	-	264	-	aldolase
699	AA098_14005	3094397	3095341	-	314	-	dihydrofolate reductase

700	AA098_14010	3095338	3096471	-	377	-	acyl-CoA dehydrogenase
701	AA098_14015	3096666	3097556	-	296	-	LysR family transcriptional regulator
702	AA098_14020	3097757	3098722	+	321	-	sulfonate ABC transporter substrate-binding protein
703	AA098_14025	3098739	3099695	+	318	-	ABC transporter substrate-binding protein
704	AA098_14035	3101150	3101401	-	83	-	hypothetical protein
705	AA098_14050	3103675	3104178	-	167	-	acetyltransferase
706	AA098_14085	3110188	3110370	+	60	-	stress-induced protein
707	AA098_14090	3110429	3110626	+	65	-	hypothetical protein
708	AA098_14095	3110645	3111976	+	443	-	hypothetical protein
709	AA098_14100	3111976	3112929	+	317	-	SAM-dependent methyltransferase
710	AA098_14130	3116882	3117637	-	251	-	acetylglucosaminylphosphatidylinositol deacetylase
711	AA098_14150	3121808	3122032	+	74	-	metallothionein
712	AA098_14170	3125249	3126301	-	350	-	hypothetical protein
713	AA098_14180	3126979	3127377	-	132	-	DNA mismatch repair protein MutT
714	AA098_14280	3145920	3147158	-	412	-	membrane protein
715	AA098_14285	3147143	3147964	-	273	-	Crp/Fnr family transcriptional regulator
716	AA098_14290	3147967	3148215	-	82	-	hypothetical protein
717	AA098_14295	3148504	3149430	+	308	-	universal stress protein
718	AA098_14300	3149460	3150008	-	182	-	GNAT family acetyltransferase
719	AA098_14305	3150191	3151117	+	308	-	universal stress protein
720	AA098_14310	3151108	3152475	+	455	-	mRNA 3'-end processing factor
721	AA098_14315	3152634	3153140	+	168	-	hypothetical protein
722	AA098_14320	3153205	3153897	+	230	-	phosphoribosyl transferase
723	AA098_14325	3154047	3155414	-	455	-	carboxylic ester hydrolase
724	AA098_14330	3155474	3156043	-	189	-	GNAT family acetyltransferase
725	AA098_14335	3156268	3156999	+	243	-	transcriptional regulator
726	AA098_14340	3156968	3157702	-	244	-	hypothetical protein
727	AA098_14345	3157893	3158453	+	186	-	heat-shock protein

728	AA098_14350	3158783	3161158	+	791	-	phosphoketolase
729	AA098_14355	3161166	3161591	-	141	-	ion transporter
730	AA098_14360	3161620	3163461	-	613	-	cell division protein FtsH
731	AA098_14370	3164323	3164577	+	84	-	outer membrane lipoprotein Oprl
732	AA098_14375	3164584	3166863	+	759	-	ATPase P
733	AA098_14380	3167025	3167915	+	296	-	universal stress protein
734	AA098_14385	3168134	3169012	+	292	-	universal stress protein
735	AA098_14390	3169014	3169586	-	190	-	phosphoribosyltransferase
736	AA098_14395	3169908	3171101	+	397	-	sodium:proton antiporter
737	AA098_14400	3171334	3171771	+	145	-	YeeE/YedE
738	AA098_14405	3171773	3172201	+	142	-	membrane protein
739	AA098_14410	3173936	3174616	+	226	-	hypothetical protein
740	AA098_14415	3174742	3176634	+	630	-	hypothetical protein
741	AA098_14420	3176644	3177636	+	330	-	hypothetical protein
742	AA098_14425	3178140	3178334	-	64	-	hypothetical protein
743	AA098_14435	3180058	3180375	+	105	-	hypothetical protein
744	AA098_14440	3180378	3180782	+	134	-	hypothetical protein
745	AA098_14445	3180868	3181599	+	243	-	serine/threonine protein phosphatase
746	AA098_14450	3181661	3182056	+	131	-	hypothetical protein
747	AA098_14455	3182074	3182367	-	97	-	hypothetical protein
748	AA098_14460	3182549	3182842	+	97	-	hypothetical protein
749	AA098_14465	3183292	3183486	-	64	-	hypothetical protein
750	AA098_14470	3183625	3183918	+	97	-	hypothetical protein
751	AA098_14475	3184130	3184354	+	74	-	hypothetical protein
752	AA098_14480	3184453	3184803	-	116	-	hypothetical protein
753	AA098_14485	3184872	3185312	+	146	-	histidine kinase
754	AA098_14490	3185404	3185682	-	92	-	amino acid transporter
755	AA098_14495	3185764	3186228	-	154	-	hemerythrin

756	AA098_14500	3186334	3188088	-	584	-	glycosyl hydrolase
757	AA098_14505	3188346	3188579	+	77	-	hypothetical protein
758	AA098_14510	3188603	3189046	-	147	-	membrane protein
759	AA098_14515	3189057	3189509	-	150	-	hypothetical protein
760	AA098_14520	3189575	3190078	-	167	-	damage-inducible protein CinA
761	AA098_14525	3190462	3191319	-	285	-	dehydrogenase
762	AA098_14530	3191515	3192039	+	174	-	membrane protein
763	AA098_14535	3192098	3192637	-	179	-	glutamine amidotransferase
764	AA098_14540	3192721	3194049	-	442	-	short-chain dehydrogenase
765	AA098_14545	3194083	3194316	-	77	-	hypothetical protein
766	AA098_14550	3194330	3195532	-	400	-	alcohol dehydrogenase
767	AA098_14555	3196449	3196682	+	77	-	hypothetical protein
768	AA098_14560	3196728	3197930	-	400	-	histidine kinase
769	AA098_14565	3197980	3198735	-	251	-	sigma factor sigB regulation protein rsbQ
770	AA098_14570	3198956	3199432	+	158	-	hypothetical protein
771	AA098_14575	3199572	3199862	+	96	-	hypothetical protein
772	AA098_14580	3199901	3200137	-	78	-	hypothetical protein
773	AA098_14595	3203735	3204025	+	96	-	hypothetical protein
774	AA098_14600	3204151	3204543	-	130	-	stress-induced protein
775	AA098_14605	3204725	3204931	-	68	-	hypothetical protein
776	AA098_14610	3205375	3207819	+	814	-	hypothetical protein
777	AA098_14615	3207865	3208263	-	132	-	hypothetical protein
778	AA098_14620	3208281	3209867	-	528	-	phospholipase
779	AA098_14630	3211480	3211710	+	76	-	hypothetical protein
780	AA098_14635	3211770	3212462	-	230	-	membrane protein
781	AA098_14640	3212756	3213124	+	122	-	transcriptional regulator
782	AA098_14645	3213941	3214174	+	77	-	hypothetical protein
783	AA098_14650	3214221	3214607	-	128	-	DNA-binding protein

784	AA098_14655	3214799	3215047	+	82	-	hypothetical protein
785	AA098_14660	3215237	3216595	+	452	-	ATPase
786	AA098_14665	3216616	3217791	+	391	-	restriction endonuclease
787	AA098_14670	3218254	3219168	+	304	-	hypothetical protein
788	AA098_14675	3219287	3219517	-	76	-	hypothetical protein
789	AA098_14680	3219899	3220165	-	88	-	hypothetical protein
790	AA098_14685	3220301	3220510	+	69	-	hypothetical protein
791	AA098_14690	3221506	3224310	+	934	-	hypothetical protein
792	AA098_14695	3224583	3225524	-	313	-	recombinase
793	AA098_14700	3225729	3226721	+	330	-	integrase
794	AA098_14705	3226993	3230916	+	1307	-	hypothetical protein
795	AA098_14710	3230913	3232997	+	694	-	hypothetical protein
796	AA098_14715	3233703	3235307	-	534	-	hypothetical protein
797	AA098_14720	3235590	3237005	-	471	-	helicase UvrD
798	AA098_14725	3236995	3238725	-	576	-	chromosome segregation protein SMC
799	AA098_14730	3239041	3239382	-	113	-	DNA-binding protein
800	AA098_14735	3239733	3241700	+	655	-	hypothetical protein
801	AA098_14745	3243899	3244906	+	335	-	hypothetical protein
802	AA098_14750	3245041	3245352	-	103	-	hypothetical protein
803	AA098_14755	3245376	3246311	-	311	-	hypothetical protein
804	AA098_14760	3247039	3247368	+	109	-	hypothetical protein
805	AA098_14765	3247352	3247651	+	99	-	hypothetical protein
806	AA098_14770	3248550	3248771	-	73	-	hypothetical protein
807	AA098_14780	3249876	3250061	-	61	-	hypothetical protein
808	AA098_14785	3250400	3251500	+	366	-	NADH:flavin oxidoreductase
809	AA098_14790	3251631	3252554	-	307	-	LysR family transcriptional regulator
810	AA098_14820	3258100	3259470	-	456	-	alpha-ketoglutarate permease
811	AA098_14825	3259745	3260668	-	307	-	LysR family transcriptional regulator

812	AA098_14830	3260883	3262175	-	430	-	C4-dicarboxylate ABC transporter
813	AA098_14835	3262664	3263194	+	176	-	phosphonopyruvate decarboxylase
814	AA098_14840	3263182	3263778	+	198	-	aldehyde dehydrogenase
815	AA098_14845	3263850	3265013	+	387	-	acyl-CoA dehydrogenase
816	AA098_14850	3265069	3266265	+	398	-	CoA-transferase
817	AA098_14860	3267066	3267995	+	309	-	electron transfer flavoprotein subunit beta
818	AA098_14865	3268009	3268851	+	280	-	transposase
819	AA098_14870	3268848	3269663	+	271	-	host specificity protein
820	AA098_14875	3269848	3270426	+	192	-	hypothetical protein
821	AA098_14880	3270502	3271545	-	347	-	3-phosphoglycerate dehydrogenase
822	AA098_14885	3271558	3272925	-	455	-	alpha-ketoglutarate permease
823	AA098_14890	3273293	3274405	-	370	-	MFS transporter
824	AA098_14895	3274734	3275396	-	220	-	diguanylate cyclase
825	AA098_14900	3275450	3276799	-	449	-	DgoT
826	AA098_14905	3276951	3277850	+	299	-	LysR family transcriptional regulator
827	AA098_14910	3277953	3278618	+	221	-	dimethylmenaquinone methyltransferase
828	AA098_14915	3278777	3279676	-	299	-	GntR family transcriptional regulator
829	AA098_14920	3279790	3280980	+	396	-	CoA-transferase
830	AA098_14925	3280998	3281963	+	321	-	hydroxymethylglutaryl-CoA lyase
831	AA098_14930	3281960	3282349	+	129	-	lactoylglutathione lyase
832	AA098_14935	3282364	3283305	+	313	-	2-hydroxyacid dehydrogenase
833	AA098_14940	3283343	3284641	+	432	-	C4-dicarboxylate transporter
834	AA098_14945	3284849	3286057	-	402	-	aspartate aminotransferase
835	AA098_14950	3286054	3286683	-	209	-	dimethylmenaquinone methyltransferase
836	AA098_14955	3286680	3287345	-	221	-	diguanylate cyclase
837	AA098_14960	3287347	3288009	-	220	-	diguanylate cyclase
838	AA098_14965	3288117	3289013	+	298	-	LysR family transcriptional regulator
839	AA098_14970	3289104	3289913	+	269	-	alpha/beta hydrolase

840	AA098_14975	3289997	3291433	+	478	-	sodium:alanine symporter
841	AA098_14980	3291752	3292504	-	250	-	oxidoreductase
842	AA098_14985	3292608	3293516	+	302	-	LysR family transcriptional regulator
843	AA098_14990	3293908	3294351	+	147	-	metal transporter
844	AA098_14995	3294378	3296057	-	559	-	sulfate transporter
845	AA098_15000	3296575	3297786	+	403	-	hemolysin D
846	AA098_15005	3297783	3300992	+	1069	-	RND transporter
847	AA098_15010	3300994	3302427	+	477	-	RND transporter
848	AA098_15015	3302780	3304138	+	452	-	hypothetical protein
849	AA098_15020	3304225	3305337	+	370	-	hypothetical protein
850	AA098_15025	3305723	3307063	+	446	-	putrescine transporter
851	AA098_15030	3307112	3308020	+	302	-	ABC transporter substrate-binding protein
852	AA098_15035	3308244	3308606	-	120	-	transcriptional regulator
853	AA098_15040	3309106	3309519	-	137	-	peptidyl-tRNA hydrolase
854	AA098_15045	3309711	3309842	-	43	-	DNA-directed DNA polymerase
855	AA098_15055	3310302	3310484	+	60	-	hypothetical protein
856	AA098_15060	3310630	3311574	+	314	-	GTP cyclohydrolase
857	AA098_15065	3311883	3313973	+	696	-	TonB-dependent receptor
858	AA098_15070	3313988	3314710	+	240	-	nickel ABC transporter substrate-binding protein
859	AA098_15075	3314913	3316229	-	438	-	sodium:dicarboxylate symporter
860	AA098_15080	3316388	3316801	-	137	-	ring-cleaving dioxygenase
861	AA098_15085	3316903	3317796	+	297	-	LysR family transcriptional regulator
862	AA098_15090	3318199	3318588	+	129	-	hypothetical protein
863	AA098_15095	3318660	3320813	+	717	-	TonB-dependent receptor
864	AA098_15100	3321188	3321595	+	135	-	hypothetical protein
865	AA098_15105	3321677	3323728	+	683	-	TonB-dependent receptor
866	AA098_15110	3324206	3325264	+	352	-	diguanylate cyclase
867	AA098_15120	3326771	3329818	-	1015	-	hypothetical protein

868	AA098_15125	3329962	3330402	+	146	-	AsnC family transcriptional regulator
869	AA098_15135	3331287	3333830	+	847	-	chemotaxis protein CheY
870	AA098_15150	3336652	3337311	-	219	-	alpha/beta hydrolase
871	AA098_15160	3338826	3339677	+	283	-	LysR family transcriptional regulator
872	AA098_15165	3339774	3340769	+	331	-	oxidoreductase
873	AA098_15170	3340762	3342024	-	420	-	histidine kinase
874	AA098_15175	3342021	3342722	-	233	-	chemotaxis protein CheY
875	AA098_15185	3345414	3345797	+	127	-	hypothetical protein
876	AA098_15235	3356267	3356956	+	229	-	phosphohistidine phosphatase
877	AA098_15240	3356959	3357795	+	278	-	phosphatidic acid phosphatase
878	AA098_15255	3361052	3361930	+	292	-	hypothetical protein
879	AA098_15260	3361945	3364617	+	890	-	hypothetical protein
880	AA098_15335	3379509	3379988	+	159	-	GNAT family acetyltransferase
881	AA098_15395	3391735	3392037	+	100	-	hypothetical protein
882	AA098_15455	3408296	3410359	-	687	-	histidine kinase
883	AA098_15465	3411369	3412175	+	268	-	hypothetical protein
884	AA098_15505	3420698	3421852	-	384	-	hypothetical protein
885	AA098_15595	3440878	3441633	-	251	-	aldolase
886	AA098_15655	3453149	3453718	+	189	-	N-acetylglucosamine-6-sulfatase
887	AA098_15660	3454016	3454453	+	145	-	hypothetical protein
888	AA098_15820	3491847	3493562	+	571	-	hypothetical protein
889	AA098_15825	3493728	3497510	+	1260	-	hypothetical protein
890	AA098_15830	3497507	3498124	+	205	-	hypothetical protein
891	AA098_15835	3498121	3499359	+	412	-	hypothetical protein
892	AA098_15840	3499347	3500189	+	280	-	hypothetical protein
893	AA098_15845	3500555	3501568	-	337	-	hypothetical protein
894	AA098_15850	3501640	3501834	-	64	-	hypothetical protein
895	AA098_15855	3502110	3502868	-	252	-	hypothetical protein

896	AA098_15860	3503017	3503334	+	105	-	AbrB family transcriptional regulator
897	AA098_15875	3504195	3505013	-	272	-	dihydrodipicolinate reductase
898	AA098_15880	3505961	3506539	+	192	-	NADPH-quinone reductase
899	AA098_15885	3506706	3507089	+	127	-	MerR family transcriptional regulator
900	AA098_15890	3507159	3509768	-	869	-	transporter
901	AA098_15895	3509802	3510638	-	278	-	sigma E regulatory protein, MucB/RseB
902	AA098_15900	3510689	3511972	-	427	-	hypothetical protein
903	AA098_15905	3511975	3512739	-	254	-	short-chain dehydrogenase
904	AA098_15910	3512736	3513473	-	245	-	3-oxoacyl-ACP reductase
905	AA098_15915	3513483	3516353	-	956	-	pyridoxalphosphate dependent aminotransferase
906	AA098_15920	3516392	3517603	-	403	-	beta-ketoacyl synthase
907	AA098_15925	3517600	3518898	-	432	-	3-oxoacyl-ACP synthase
908	AA098_15930	3518895	3519809	-	304	-	beta-ketoacyl synthase
909	AA098_15935	3519979	3521253	-	424	-	3-oxoacyl-ACP synthase
910	AA098_15940	3521265	3521834	-	189	-	acyl carrier protein
911	AA098_15950	3522944	3523366	+	140	-	hypothetical protein
912	AA098_15955	3523413	3524600	+	395	-	monooxygenase
913	AA098_15960	3524609	3525712	+	367	-	Fis family transcriptional regulator
914	AA098_15965	3525925	3527250	-	441	-	ABC transporter permease
915	AA098_15970	3527318	3528385	-	355	-	ABC transporter permease
916	AA098_15975	3528398	3529279	-	293	-	ABC transporter permease
917	AA098_15980	3529255	3530088	-	277	-	ABC transporter
918	AA098_15985	3530098	3531228	-	376	-	long-chain fatty acid--CoA ligase
919	AA098_15990	3531240	3532331	-	363	-	alkanesulfonate monooxygenase
920	AA098_15995	3532358	3532918	-	186	-	FMN reductase
921	AA098_16000	3533257	3534495	+	412	-	monooxygenase
922	AA098_16005	3534561	3535547	-	328	-	branched-chain amino acid ABC transporter permease
923	AA098_16010	3535549	3536526	-	325	-	ABC transporter permease

924	AA098_16015	3536510	3538048	-	512	-	sugar ABC transporter
925	AA098_16020	3538045	3539073	-	342	-	sugar ABC transporter substrate-binding protein
926	AA098_16025	3539070	3540041	-	323	-	sugar ABC transporter substrate-binding protein
927	AA098_16030	3540038	3540424	-	128	-	hypothetical protein
928	AA098_16035	3540434	3541666	-	410	-	acyl-CoA dehydrogenase
929	AA098_16040	3542012	3543361	-	449	-	porin
930	AA098_16045	3543645	3544421	-	258	-	branched-chain amino acid ABC transporter ATP-binding protein
931	AA098_16050	3544538	3545872	-	444	-	ABC transporter permease
932	AA098_16055	3545932	3547272	-	446	-	ABC transporter permease
933	AA098_16060	3547351	3548415	-	354	-	ABC transporter permease
934	AA098_16065	3548420	3549301	-	293	-	ABC transporter permease
935	AA098_16070	3549298	3550098	-	266	-	ABC transporter
936	AA098_16075	3550065	3551036	-	323	-	hypothetical protein
937	AA098_16080	3551057	3552466	-	469	-	5,10-methylene tetrahydromethanopterin reductase
938	AA098_16085	3552710	3553699	+	329	-	universal stress protein
939	AA098_16090	3553795	3554754	+	319	-	ribose-phosphate pyrophosphokinase
940	AA098_16095	3554936	3555544	+	202	-	acetyltransferase
941	AA098_16100	3555541	3555900	+	119	-	cupin
942	AA098_16105	3555968	3557605	+	545	-	mechanosensitive ion channel protein MscS
943	AA098_16120	3559402	3559824	+	140	-	transcriptional regulator
944	AA098_16155	3566010	3566315	-	101	-	metal ABC transporter ATPase
945	AA098_16160	3566312	3566848	-	178	-	lipoprotein
946	AA098_16165	3566851	3567387	-	178	-	periplasmic protein
947	AA098_16170	3567548	3568039	+	163	-	hypothetical protein
948	AA098_16175	3568118	3568888	+	256	-	C-factor
949	AA098_16180	3568984	3569676	+	230	-	membrane protein
950	AA098_16185	3569769	3570308	+	179	-	glutamine amidotransferase
951	AA098_16190	3570365	3570889	-	174	-	membrane protein

952	AA098_16195	3571084	3571941	+	285	-	dehydrogenase
953	AA098_16200	3572229	3572456	-	75	-	hypothetical protein
954	AA098_16205	3572922	3573269	+	115	-	ArsR family transcriptional regulator
955	AA098_16210	3573291	3574574	+	427	-	arsenical pump membrane protein
956	AA098_16215	3574602	3575072	+	156	-	ArsC family transcriptional regulator
957	AA098_16225	3575800	3577164	-	454	-	histidine kinase
958	AA098_16240	3578464	3579270	-	268	-	short-chain dehydrogenase
959	AA098_16250	3579946	3581415	-	489	-	long-chain acyl-CoA synthetase
960	AA098_16255	3581405	3582085	-	226	-	thermostable hemolysin
961	AA098_16265	3582996	3583238	-	80	-	hypothetical protein
962	AA098_16270	3583305	3583562	-	85	-	hypothetical protein
963	AA098_16275	3583691	3584875	-	394	-	amidohydrolase
964	AA098_16280	3584877	3586178	-	433	-	MFS transporter
965	AA098_16285	3586552	3587682	+	376	-	porin
966	AA098_16290	3587659	3588597	-	312	-	LysR family transcriptional regulator
967	AA098_16295	3588684	3589184	-	166	-	peroxiredoxin
968	AA098_16300	3589416	3590399	+	327	-	hypothetical protein
969	AA098_16305	3590426	3591460	+	344	-	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase
970	AA098_16310	3591486	3591995	+	169	-	flavin reductase
971	AA098_16315	3592094	3593023	+	309	-	XRE family transcriptional regulator
972	AA098_16320	3593090	3593977	-	295	-	LysR family transcriptional regulator
973	AA098_16325	3594073	3595515	+	480	-	aldehyde dehydrogenase
974	AA098_16330	3595529	3596515	+	328	-	peptidase M19
975	AA098_16335	3596571	3598121	+	516	-	BCCT transporter
976	AA098_16340	3598148	3599842	+	564	-	hypothetical protein
977	AA098_16345	3599845	3600540	+	231	-	lactate dehydrogenase
978	AA098_16350	3600568	3600939	+	123	-	endoribonuclease
979	AA098_16355	3601373	3602782	+	469	-	hypothetical protein

980	AA098_16360	3602786	3603736	+	316	-	hypothetical protein
981	AA098_16365	3603733	3604512	+	259	-	transglutaminase
982	AA098_16370	3604586	3605308	+	240	-	peptidase
983	AA098_16375	3605723	3607066	+	447	-	permease DsdX
984	AA098_16380	3607101	3608450	+	449	-	D-serine dehydratase
985	AA098_16385	3608486	3609424	+	312	-	transcriptional regulator
986	AA098_16390	3609454	3610821	-	455	-	GntR family transcriptional regulator
987	AA098_16395	3610972	3612258	+	428	-	3-hydroxy-3-methylglutaryl-CoA reductase
988	AA098_16400	3612255	3613175	+	306	-	hydroxymethylglutaryl-CoA lyase
989	AA098_16405	3613278	3613730	+	150	-	hypothetical protein
990	AA098_16410	3613727	3615112	+	461	-	membrane protein
991	AA098_16420	3616580	3617194	-	204	-	hypothetical protein
992	AA098_16435	3620739	3621011	-	90	-	pyrroloquinoline quinone biosynthesis protein PqqD
993	AA098_16465	3627800	3628261	-	153	-	cytochrome C
994	AA098_16510	3637486	3638007	+	173	-	transposase
995	AA098_16515	3638037	3638840	+	267	-	integrase
996	AA098_16575	3650627	3650860	-	77	-	hypothetical protein
997	AA098_16580	3650932	3651357	-	141	-	glutathione metabolism protein
998	AA098_16585	3651354	3651668	-	104	-	hypothetical protein
999	AA098_16590	3651775	3652593	+	272	-	Cro/Ci family transcriptional regulator
1000	AA098_16595	3652583	3653368	-	261	-	hydratase
1001	AA098_16605	3654895	3656037	-	380	-	4-hydroxybutyrate dehydrogenase
1002	AA098_16610	3656180	3657121	+	313	-	LysR family transcriptional regulator
1003	AA098_16615	3657215	3657673	-	152	-	AsnC family transcriptional regulator
1004	AA098_16620	3657799	3658515	+	238	-	branched-chain amino acid ABC transporter permease
1005	AA098_16625	3658512	3658814	+	100	-	membrane protein
1006	AA098_16640	3661469	3661846	-	125	-	hypothetical protein
1007	AA098_16645	3661868	3664582	-	904	-	magnesium ABC transporter ATPase

1008	AA098_16665	3670556	3671014	+	152	-	acetyltransferase
1009	AA098_16675	3672372	3673094	-	240	-	hypothetical protein
1010	AA098_16680	3673112	3674575	-	487	-	peptidase
1011	AA098_16690	3676809	3680426	-	1205	-	type VI secretion protein VskK
1012	AA098_16695	3680423	3681886	-	487	-	membrane protein
1013	AA098_16700	3681874	3682317	-	147	-	hypothetical protein
1014	AA098_16705	3682569	3683597	-	342	-	transcriptional regulator
1015	AA098_16710	3683967	3684470	+	167	-	type VI secretion protein
1016	AA098_16715	3684488	3685978	+	496	-	type VI secretion protein
1017	AA098_16720	3685975	3686385	+	136	-	hypothetical protein
1018	AA098_16725	3686389	3688155	+	588	-	type VI secretion protein
1019	AA098_16730	3688119	3689135	+	338	-	type VI secretion protein
1020	AA098_16735	3689132	3689701	+	189	-	hypothetical protein
1021	AA098_16740	3689698	3690495	+	265	-	hypothetical protein
1022	AA098_16745	3690551	3691888	+	445	-	type VI secretion protein
1023	AA098_16755	3692886	3693401	+	171	-	major exported protein
1024	AA098_16765	3695641	3696564	+	307	-	hypothetical protein
1025	AA098_16770	3696557	3699547	+	996	-	hypothetical protein
1026	AA098_16775	3699904	3700440	+	178	-	hypothetical protein
1027	AA098_16780	3700928	3701485	+	185	-	hypothetical protein
1028	AA098_16835	3713279	3714622	-	447	-	porin
1029	AA098_16890	3724014	3724553	-	179	-	transcriptional regulator
1030	AA098_16900	3726180	3727805	+	541	-	chemotaxis protein
1031	AA098_16980	3743085	3744404	-	439	-	porin
1032	AA098_16985	3744509	3745237	-	242	-	nitrobenzoate reductase
1033	AA098_16990	3745266	3746618	-	450	-	major facilitator transporter
1034	AA098_16995	3746885	3747910	-	341	-	AraC family transcriptional regulator
1035	AA098_17000	3748142	3748597	+	151	-	dehydratase

1036	AA098_17030	3755470	3756477	+	335	-	AraC family transcriptional regulator
1037	AA098_17035	3756602	3757936	-	444	-	MFS transporter
1038	AA098_17070	3767302	3767796	-	164	-	acetyltransferase
1039	AA098_17195	3797264	3798331	+	355	-	Rieske (2Fe-2S) protein
1040	AA098_17200	3798344	3799294	+	316	-	Vanillate O-demethylase oxidoreductase
1041	AA098_17205	3799301	3800014	-	237	-	GntR family transcriptional regulator
1042	AA098_17210	3800160	3801413	-	417	-	porin
1043	AA098_17215	3801516	3802856	-	446	-	MFS transporter
1044	AA098_17230	3806264	3806581	+	105	-	hypothetical protein
1045	AA098_17260	3811928	3812266	+	112	-	hypothetical protein
1046	AA098_17350	3830486	3830728	+	80	-	hypothetical protein
1047	AA098_17360	3831768	3832121	+	117	-	hypothetical protein
1048	AA098_17370	3832488	3832802	-	104	-	chemotaxis protein
1049	AA098_17380	3833830	3834153	-	107	-	hypothetical protein
1050	AA098_17385	3834388	3835062	+	224	-	alginate lyase
1051	AA098_17390	3835176	3835409	-	77	-	hypothetical protein
1052	AA098_17395	3836574	3836909	+	111	-	hypothetical protein
1053	AA098_17400	3837056	3837373	-	105	-	hypothetical protein
1054	AA098_17570	3867973	3868731	+	252	-	molybdate ABC transporter substrate-binding protein
1055	AA098_17595	3872074	3872427	-	117	-	chemotaxis protein CheY
1056	AA098_17620	3876122	3876316	-	64	-	hypothetical protein
1057	AA098_17630	3877854	3878060	+	68	-	hypothetical protein
1058	AA098_17635	3878337	3878573	+	78	-	hypothetical protein
1059	AA098_17640	3878605	3878976	-	123	-	MerR family transcriptional regulator
1060	AA098_17645	3879049	3880146	+	365	-	NAD-dependent dehydratase
1061	AA098_17650	3880273	3880572	-	99	-	hypothetical protein
1062	AA098_17655	3880708	3880905	-	65	-	hypothetical protein
1063	AA098_17660	3881335	3881529	+	64	-	hypothetical protein

1064	AA098_17675	3884865	3885197	+	110	-	hypothetical protein
1065	AA098_17725	3892152	3892331	-	59	-	hypothetical protein
1066	AA098_17755	3898946	3899131	+	61	-	hypothetical protein
1067	AA098_17760	3899303	3900595	-	430	-	porin
1068	AA098_17765	3900733	3902046	-	437	-	MFS transporter permease
1069	AA098_17770	3902255	3902896	-	213	-	isochorismatase
1070	AA098_17775	3902912	3903664	-	250	-	Asp/Glu racemase
1071	AA098_17780	3903678	3904484	-	268	-	alpha/beta hydrolase
1072	AA098_17785	3904481	3905629	-	382	-	6-hydroxynicotinate 3-monooxygenase
1073	AA098_17790	3905951	3907003	+	350	-	2,5-dihydroxypyridine 5,6-dioxygenase
1074	AA098_17795	3907074	3907550	+	158	-	MarR family transcriptional regulator
1075	AA098_17800	3908270	3908743	+	157	-	(2Fe-2S)-binding protein
1076	AA098_17805	3908740	3912303	+	1187	-	aldehyde dehydrogenase
1077	AA098_17810	3912307	3912945	-	212	-	TetR family transcriptional regulator
1078	AA098_17815	3913232	3915397	-	721	-	chemotaxis protein
1079	AA098_17820	3915789	3916484	+	231	-	3-oxoadipate CoA-transferase
1080	AA098_17825	3916493	3917134	+	213	-	3-oxoadipate CoA-transferase
1081	AA098_17840	3921093	3921449	-	118	-	hypothetical protein
1082	AA098_17845	3921521	3922810	-	429	-	ammonia channel protein
1083	AA098_17870	3927679	3928281	+	200	-	XRE family transcriptional regulator
1084	AA098_17875	3928529	3929395	+	288	-	formyltetrahydrofolate deformylase
1085	AA098_17880	3929392	3930297	+	301	-	methenyltetrahydrofolate cyclohydrolase
1086	AA098_17885	3930279	3931520	+	413	-	sarcosine oxidase subunit beta
1087	AA098_17890	3931531	3931830	+	99	-	sarcosine oxidase subunit delta
1088	AA098_17900	3934726	3935307	+	193	-	sarcosine oxidase
1089	AA098_17905	3935417	3936196	+	259	-	IclR family transcriptional regulator
1090	AA098_17915	3936673	3937149	-	158	-	AsnC family transcriptional regulator
1091	AA098_17920	3937287	3938153	-	288	-	LysR family transcriptional regulator

1092	AA098_17925	3938273	3939187	+	304	-	oxidoreductase
1093	AA098_17930	3939617	3940651	+	344	-	acetylpolyamine aminohydrolase
1094	AA098_17935	3940699	3941637	-	312	-	amidinotransferase
1095	AA098_17940	3941672	3942724	-	350	-	ornithine cyclodeaminase
1096	AA098_17950	3943701	3945116	+	471	-	amino acid transporter
1097	AA098_17955	3945127	3945363	+	78	-	transcriptional regulator
1098	AA098_18040	3961450	3962808	-	452	-	amidase
1099	AA098_18045	3963107	3964111	+	334	-	GntR family transcriptional regulator
1100	AA098_18050	3964698	3965570	+	290	-	xylose isomerase
1101	AA098_18055	3965655	3966845	-	396	-	ABC transporter permease
1102	AA098_18060	3966842	3968377	-	511	-	ABC transporter ATP-binding protein
1103	AA098_18065	3968433	3969500	-	355	-	sugar ABC transporter substrate-binding protein
1104	AA098_18070	3969594	3970679	-	361	-	oxidoreductase
1105	AA098_18075	3970731	3971726	-	331	-	myo-inositol 2-dehydrogenase
1106	AA098_18080	3971770	3972636	-	288	-	xylose isomerase
1107	AA098_18085	3972635	3972814	+	59	-	hypothetical protein
1108	AA098_18090	3972955	3973869	+	304	-	LysR family transcriptional regulator
1109	AA098_18095	3973974	3974357	+	127	-	ketosteroid isomerase
1110	AA098_18100	3974427	3975497	+	356	-	Maleylacetate reductase
1111	AA098_18105	3975556	3976470	-	304	-	LysR family transcriptional regulator
1112	AA098_18110	3976627	3977499	+	290	-	hydroxyquinol 1,2-dioxygenase
1113	AA098_18115	3977559	3977864	+	101	-	stress responsive protein
1114	AA098_18120	3978529	3979887	-	452	-	porin
1115	AA098_18125	3980112	3981569	-	485	-	IoT
1116	AA098_18350	4031385	4032335	+	316	-	transposase
1117	AA098_18400	4047146	4047412	+	88	-	hypothetical protein
1118	AA098_18440	4062379	4063236	+	285	-	hypothetical protein
1119	AA098_18490	4074391	4078017	-	1208	-	type VI secretion protein VasK

1120	AA098_18495	4078014	4079480	-	488	-	membrane protein
1121	AA098_18500	4079468	4079893	-	141	-	hypothetical protein
1122	AA098_18505	4080375	4080878	+	167	-	type VI secretion protein
1123	AA098_18510	4080896	4082383	+	495	-	type VI secretion protein
1124	AA098_18515	4082380	4082790	+	136	-	hypothetical protein
1125	AA098_18520	4082794	4084560	+	588	-	type VI secretion protein
1126	AA098_18525	4084524	4085540	+	338	-	type VI secretion protein
1127	AA098_18530	4085537	4085749	+	70	-	hypothetical protein
1128	AA098_18535	4085746	4086543	+	265	-	hypothetical protein
1129	AA098_18540	4086593	4087930	+	445	-	type VI secretion protein
1130	AA098_18545	4087932	4088801	+	289	-	type VI secretion system protein
1131	AA098_18550	4088935	4089450	+	171	-	major exported protein
1132	AA098_18560	4091557	4091988	+	143	-	hypothetical protein
1133	AA098_18570	4097438	4097863	+	141	-	hypothetical protein
1134	AA098_18575	4097860	4098051	+	63	-	hypothetical protein
1135	AA098_18580	4098376	4099053	+	225	-	DSBA oxidoreductase
1136	AA098_18585	4099414	4100751	-	445	-	porin
1137	AA098_18590	4101048	4101488	+	146	-	hypothetical protein
1138	AA098_18595	4101493	4102848	+	451	-	acetyl-CoA carboxylase
1139	AA098_18600	4102851	4103264	+	137	-	hypothetical protein
1140	AA098_18605	4103269	4104036	+	255	-	hypothetical protein
1141	AA098_18610	4104179	4104925	+	248	-	oxidoreductase
1142	AA098_18615	4105021	4105722	+	233	-	ABC transporter permease
1143	AA098_18620	4105729	4106487	+	252	-	amino acid ABC transporter permease
1144	AA098_18630	4107284	4108117	+	277	-	ABC transporter
1145	AA098_18635	4108277	4109479	+	400	-	aspartate aminotransferase
1146	AA098_18640	4109543	4110514	-	323	-	allophanate hydrolase
1147	AA098_18645	4110511	4111212	-	233	-	allophanate hydrolase

1148	AA098_18650	4111241	4112752	-	503	-	DSBA oxidoreductase
1149	AA098_18655	4113013	4113927	+	304	-	nitrogen assimilation transcriptional regulator
1150	AA098_18660	4114035	4114259	+	74	-	hypothetical protein
1151	AA098_18690	4119547	4119936	-	129	-	Cro/Ci family transcriptional regulator
1152	AA098_18700	4120498	4120884	-	128	-	MarR family transcriptional regulator
1153	AA098_18755	4133069	4134778	-	569	-	peptidase S8 and S53 subtilisin kexin sedolisin
1154	AA098_18760	4134832	4136007	-	391	-	hypothetical protein
1155	AA098_18850	4155537	4155914	+	125	-	transcriptional regulator
1156	AA098_18940	4174923	4175390	+	155	-	DNA-binding protein
1157	AA098_18955	4179108	4180343	-	411	-	amine oxidase
1158	AA098_19015	4193235	4193609	-	124	-	hypothetical protein
1159	AA098_19105	4212574	4214013	+	479	-	RND transporter
1160	AA098_19110	4214090	4215109	+	339	-	siderophore biosynthesis protein
1161	AA098_19120	4216988	4221196	+	1402	-	peptide synthetase
1162	AA098_19125	4221282	4222112	+	276	-	chromophore maturation protein PvdO
1163	AA098_19130	4222170	4224662	-	830	-	ligand-gated channel protein
1164	AA098_19135	4224971	4228147	-	1058	-	thioester reductase
1165	AA098_19140	4228144	4238442	-	3432	-	peptide synthase
1166	AA098_19145	4238455	4241844	-	1129	-	peptide synthetase
1167	AA098_19150	4241844	4257536	-	5230	-	peptide synthetase
1168	AA098_19160	4258978	4259520	+	180	-	thiamine pyrophosphate-binding protein
1169	AA098_19235	4276471	4276905	-	144	-	hypothetical protein
1170	AA098_19275	4284635	4285036	-	133	-	antitoxin
1171	AA098_19280	4285039	4285335	-	98	-	mRNA interferase MqsR
1172	AA098_19310	4291245	4292534	+	429	-	class V aminotransferase
1173	AA098_19315	4292599	4293720	+	373	-	cupin
1174	AA098_19340	4298828	4299316	+	162	-	hypothetical protein
1175	AA098_19345	4299335	4299952	+	205	-	glutamyl-tRNA amidotransferase

1176	AA098_19395	4311528	4312265	+	245	-	hypothetical protein
1177	AA098_19400	4312265	4312966	+	233	-	ABC transporter
1178	AA098_19575	4359710	4359943	-	77	-	hypothetical protein
1179	AA098_19590	4362791	4363171	-	126	-	hypothetical protein
1180	AA098_19595	4363258	4364769	-	503	-	MFS transporter
1181	AA098_19600	4364965	4365231	-	88	-	methyltransferase
1182	AA098_19605	4365194	4365871	+	225	-	mechanosensitive ion channel protein MscS
1183	AA098_19610	4365850	4366002	+	50	-	mechanosensitive ion channel protein MscS
1184	AA098_19625	4368076	4368513	+	145	-	AsnC family transcriptional regulator
1185	AA098_19670	4376367	4376558	-	63	-	hypothetical protein
1186	AA098_19675	4376712	4377890	-	392	-	integrase
1187	AA098_19735	4387636	4387974	+	112	-	flagellar biosynthesis protein FlhB
1188	AA098_19740	4388042	4390753	+	903	-	mannosyltransferase
1189	AA098_19915	4424357	4424878	+	173	-	transposase
1190	AA098_19920	4424908	4425711	+	267	-	integrase
1191	AA098_19930	4427440	4427733	-	97	-	flagellar assembly protein FliT
1192	AA098_19950	4430087	4431835	-	582	-	flagellin
1193	AA098_19995	4442048	4442239	-	63	-	hypothetical protein
1194	AA098_20055	4451728	4453050	-	440	-	glutamate--ammonia ligase
1195	AA098_20095	4460656	4461834	+	392	-	integrase
1196	AA098_20105	4462490	4463872	+	460	-	GABA permease
1197	AA098_20115	4464143	4464736	-	197	-	ribose-phosphate pyrophosphokinase
1198	AA098_20255	4491977	4496176	+	1399	-	hypothetical protein
1199	AA098_20460	4539927	4540199	+	90	-	hypothetical protein
1200	AA098_20585	4570064	4570468	+	134	-	acetyltransferase
1201	AA098_20600	4572076	4572255	-	59	-	hypothetical protein
1202	AA098_20855	4624447	4625064	+	205	-	amino acid transporter LysE
1203	AA098_20860	4625165	4626373	-	402	-	hypothetical protein

1204	AA098_20865	4626384	4628294	-	636	-	hypothetical protein
1205	AA098_20870	4628303	4629163	-	286	-	hypothetical protein
1206	AA098_20875	4629806	4630069	+	87	-	hypothetical protein
1207	AA098_20880	4630206	4630478	+	90	-	hypothetical protein
1208	AA098_20890	4631405	4631797	+	130	-	hypothetical protein
1209	AA098_20945	4640047	4640850	-	267	-	integrase
1210	AA098_20950	4640880	4641401	-	173	-	transposase
1211	AA098_21075	4664350	4664556	-	68	-	hypothetical protein
1212	AA098_21145	4680191	4681873	-	560	-	hypothetical protein
1213	AA098_21150	4681870	4682715	-	281	-	hypothetical protein
1214	AA098_21230	4700770	4701048	-	92	-	hypothetical protein
1215	AA098_21235	4701192	4701665	+	157	-	hypothetical protein
1216	AA098_21240	4702366	4703625	+	419	-	hypothetical protein
1217	AA098_21245	4703609	4705396	+	595	-	thiamine biosynthesis protein ThiF
1218	AA098_21410	4746489	4747994	+	501	-	DNA polymerase
1219	AA098_21425	4752571	4753599	+	342	-	transcriptional regulator
1220	AA098_21430	4754041	4755069	+	342	-	transcriptional regulator
1221	AA098_21465	4764921	4765949	-	342	-	transcriptional regulator
1222	AA098_21495	4774296	4775171	-	291	-	hypothetical protein
1223	AA098_21500	4775285	4778098	-	937	-	phosphoesterase
1224	AA098_21505	4778652	4780301	+	549	-	hypothetical protein
1225	AA098_21510	4780450	4781868	-	472	-	hypothetical protein
1226	AA098_21515	4782031	4783017	-	328	-	ATP-binding protein
1227	AA098_21520	4783430	4784338	-	302	-	recombinase
1228	AA098_21525	4784512	4785489	+	325	-	TnpT protein
1229	AA098_21530	4785825	4786253	+	142	-	hypothetical protein
1230	AA098_21535	4786638	4786901	-	87	-	hypothetical protein
1231	AA098_21540	4787966	4788844	-	292	-	hypothetical protein

1232	AA098_21545	4789522	4789893	+	123	-	hypothetical protein
1233	AA098_21555	4791978	4792766	+	262	-	hypothetical protein
1234	AA098_21560	4794053	4795267	+	404	-	hypothetical protein
1235	AA098_21565	4796355	4796594	-	79	-	bifunctional antitoxin/transcriptional repressor RelB
1236	AA098_21575	4799302	4800108	+	268	-	NAD-dependent dehydratase
1237	AA098_21580	4800131	4801012	+	293	-	gluconolactonase
1238	AA098_21585	4801077	4802048	+	323	-	C4-dicarboxylate ABC transporter
1239	AA098_21590	4802115	4802642	+	175	-	C4-dicarboxylate ABC transporter
1240	AA098_21595	4802643	4803923	+	426	-	membrane protein
1241	AA098_21600	4803978	4804901	+	307	-	membrane protein
1242	AA098_21605	4804926	4805795	+	289	-	aldose epimerase
1243	AA098_21630	4810380	4811369	-	329	-	asparaginase
1244	AA098_21675	4821707	4822603	+	298	-	membrane protein
1245	AA098_21860	4861068	4861970	-	300	-	pyridoxal-5'-phosphate-dependent protein
1246	AA098_21870	4863175	4863963	-	262	-	synthetase
1247	AA098_21875	4863960	4864664	-	234	-	serine acetyltransferase
1248	AA098_21910	4875273	4875923	+	216	-	DEAD/DEAH box helicase
1249	AA098_21950	4882519	4883121	+	200	-	electron transporter RnfG
1250	AA098_21965	4884386	4884562	+	58	-	leucyl-tRNA synthetase
1251	AA098_22065	4903798	4908120	-	1440	-	hypothetical protein
1252	AA098_22115	4917437	4917850	-	137	-	DNA mismatch repair protein MutT
1253	AA098_22155	4931620	4932006	-	128	-	type II secretion pathway protein XcpZ
1254	AA098_22160	4932003	4933091	-	362	-	general secretion pathway protein GspL
1255	AA098_22175	4934028	4934459	-	143	-	general secretion pathway protein GspH
1256	AA098_22260	4956228	4959185	+	985	-	hypothetical protein
1257	AA098_22280	4963058	4963813	-	251	-	permease
1258	AA098_22385	4988387	4989337	-	316	-	transposase
1259	AA098_22440	5002173	5002541	+	122	-	acetyl-CoA carboxylase

1260	AA098_22455	5005597	5006238	-	213	-	hypothetical protein
1261	AA098_22460	5006228	5006812	-	194	-	RNA polymerase sigma factor
1262	AA098_22465	5007037	5007324	+	95	-	membrane protein
1263	AA098_22470	5007341	5008174	+	277	-	hypothetical protein
1264	AA098_22475	5008171	5008944	+	257	-	hypothetical protein
1265	AA098_22480	5008937	5009404	+	155	-	DoxX family protein
1266	AA098_22565	5027907	5028383	-	158	-	ketosteroid isomerase
1267	AA098_22575	5029787	5030437	-	216	-	GntR family transcriptional regulator
1268	AA098_22580	5030577	5031761	+	394	-	hypothetical protein
1269	AA098_22685	5047788	5048681	-	297	-	divalent cation transporter
1270	AA098_22695	5049306	5049767	-	153	-	hypothetical protein
1271	AA098_22795	5072671	5073558	-	295	-	acyl-CoA dehydrogenase
1272	AA098_22875	5090669	5091151	+	160	-	hypothetical protein
1273	AA098_22880	5091166	5091552	+	128	-	hypothetical protein
1274	AA098_22940	5104471	5105391	-	306	-	hypothetical protein
1275	AA098_22945	5105570	5106817	+	415	-	hypothetical protein
1276	AA098_22970	5110811	5111389	-	192	-	glutamine amidotransferase
1277	AA098_22980	5112600	5113181	-	193	-	hypothetical protein
1278	AA098_22985	5113226	5113522	-	98	-	amidase
1279	AA098_23055	5133128	5133691	+	187	-	hypothetical protein
1280	AA098_23295	5183350	5183997	+	215	-	hypothetical protein
1281	AA098_23305	5184658	5184954	-	98	-	addiction module antitoxin
1282	AA098_23310	5184951	5185244	-	97	-	addiction module antitoxin RelB
1283	AA098_23330	5187983	5188792	-	269	-	phosphonate ABC transporter
1284	AA098_23350	5192052	5192438	-	128	-	hypothetical protein
1285	AA098_23355	5192459	5192998	-	179	-	hypothetical protein
1286	AA098_23370	5194459	5195586	-	375	-	hypothetical protein
1287	AA098_23420	5206640	5230720	+	8026	-	adhesin

1288	AA098_23425	5230784	5232220	+	478	-	channel protein TolC
1289	AA098_23430	5232217	5234385	+	722	-	ATP-binding protein
1290	AA098_23435	5234382	5235566	+	394	-	secretion protein HlyD
1291	AA098_23450	5237067	5237801	+	244	-	Fe-S oxidoreductase
1292	AA098_23475	5242130	5242351	+	73	-	hypothetical protein
1293	AA098_23585	5266868	5267092	+	74	-	hypothetical protein
1294	AA098_23605	5272366	5272665	+	99	-	hypothetical protein
1295	AA098_23655	5283099	5283284	-	61	-	LITAF-like zinc ribbon domain containing protein
1296	AA098_23670	5285121	5285327	+	68	-	hypothetical protein
1297	AA098_23740	5296826	5297725	+	299	-	MerR family transcriptional regulator
1298	AA098_23750	5299155	5299853	+	232	-	short-chain dehydrogenase
1299	AA098_23825	5313911	5314633	-	240	-	short-chain dehydrogenase
1300	AA098_23830	5314649	5315497	-	282	-	thiamine biosynthesis protein ThiJ
1301	AA098_23835	5315614	5316537	+	307	-	LuxR family transcriptional regulator
1302	AA098_23870	5324303	5325118	-	271	-	polyphosphate kinase
1303	AA098_23915	5335666	5336181	+	171	-	RNA polymerase sigma factor
1304	AA098_23920	5336168	5337124	+	318	-	iron dicitrate transport regulator FecR
1305	AA098_23935	5340022	5340945	+	307	-	peptide ABC transporter substrate-binding protein
1306	AA098_23955	5342947	5343522	-	191	-	peptidase M15
1307	AA098_24120	5379586	5380971	+	461	-	gluconate transporter
1308	AA098_24125	5381068	5381766	-	232	-	hypothetical protein
1309	AA098_24135	5382812	5383051	-	79	-	hypothetical protein
1310	AA098_24140	5383623	5384444	+	273	-	hypothetical protein
1311	AA098_24145	5385792	5386229	-	145	-	DNA-binding protein
1312	AA098_24160	5390212	5391240	+	342	-	transcriptional regulator
1313	AA098_24170	5394623	5394913	-	96	-	hypothetical protein
1314	AA098_24280	5409756	5410520	+	254	-	GntR family transcriptional regulator
1315	AA098_24285	5410611	5411813	+	400	-	branched-chain amino acid ABC transporter substrate-binding protein

1316	AA098_24290	5411879	5412739	+	286	-	ABC transporter permease
1317	AA098_24295	5412741	5413760	+	339	-	ABC transporter permease
1318	AA098_24300	5413760	5414512	+	250	-	ABC transporter
1319	AA098_24305	5414512	5415207	+	231	-	ABC transporter
1320	AA098_24310	5415321	5416598	+	425	-	allantoate amidohydrolase
1321	AA098_24315	5416600	5418009	+	469	-	amidase
1322	AA098_24330	5419911	5420375	-	154	-	hypothetical protein
1323	AA098_24335	5420372	5421010	-	212	-	pilus assembly protein PilW
1324	AA098_24340	5421007	5421189	-	60	-	pilus assembly protein PilV
1325	AA098_24345	5421299	5421781	+	160	-	type IV pili biogenesis protein FimT
1326	AA098_24510	5459336	5460187	+	283	-	acyl dehydratase
1327	AA098_24540	5463460	5464236	+	258	-	LuxR family transcriptional regulator
1328	AA098_24570	5475942	5476373	+	143	-	hypothetical protein
1329	AA098_24580	5478473	5478844	-	123	-	translation initiation factor Sui1
1330	AA098_24745	5517513	5518286	+	257	-	cystathionine gamma-lyase
1331	AA098_24750	5518779	5519243	+	154	-	cation-binding protein
1332	AA098_24755	5519420	5521609	-	729	-	TonB-dependent receptor
1333	AA098_24760	5521791	5522483	+	230	-	transcriptional regulator
1334	AA098_24765	5522483	5523811	+	442	-	histidine kinase
1335	AA098_24770	5523912	5524805	+	297	-	esterase
1336	AA098_24775	5524827	5525807	-	326	-	zeta toxin family protein
1337	AA098_24800	5530819	5532660	+	613	-	TonB-dependent receptor
1338	AA098_24830	5535925	5536893	-	322	-	thiamine monophosphate kinase
1339	AA098_24910	5548195	5549400	-	401	-	major facilitator transporter
1340	AA098_24935	5552998	5553843	+	281	-	hypothetical protein
1341	AA098_25320	5621909	5622397	-	162	-	hypothetical protein
1342	AA098_25325	5622730	5623128	-	132	-	transposase
1343	AA098_25395	5634116	5634448	+	110	-	membrane protein

1344	AA098_25405	5635627	5636031	-	134	-	plasmid maintenance protein
1345	AA098_25410	5636031	5636261	-	76	-	antitoxin
1346	AA098_25425	5638438	5638935	+	165	-	DNA repair protein RadC
1347	AA098_25430	5639405	5639983	-	192	-	hypothetical protein
1348	AA098_25435	5639987	5641495	-	502	-	transposase
1349	AA098_25440	5641531	5641875	-	114	-	isocitrate lyase
1350	AA098_25445	5641872	5642198	-	108	-	transposase
1351	AA098_25450	5642328	5642516	-	62	-	hypothetical protein
1352	AA098_25460	5643835	5645901	-	688	-	DEAD/DEAH box helicase
1353	AA098_25465	5645960	5648725	-	921	-	lactate dehydrogenase
1354	AA098_25475	5649726	5650379	-	217	-	transposase
1355	AA098_25480	5650683	5650883	-	66	-	transcriptional regulator
1356	AA098_25485	5651466	5652179	+	237	-	hypothetical protein
1357	AA098_25490	5652263	5653462	-	399	-	integrase
1358	AA098_25595	5678219	5678551	+	110	-	sulfurtransferase
1359	AA098_25665	5696792	5697346	-	184	-	serine acetyltransferase
1360	AA098_25685	5700940	5703240	+	766	-	peptidase M16
1361	AA098_25750	5717811	5718491	-	226	-	dethiobiotin synthetase
1362	AA098_25780	5723140	5723904	+	254	-	ModE family transcriptional regulator
1363	AA098_25840	5738416	5738601	+	61	-	hypothetical protein
1364	AA098_25945	5767341	5768033	+	230	-	YD repeat protein
1365	AA098_25995	5781039	5781341	-	100	-	ZapA
1366	AA098_26050	5795837	5796253	+	138	-	hypothetical protein
1367	AA098_26055	5796392	5797084	+	230	-	hypothetical protein
1368	AA098_26060	5797156	5797773	+	205	-	hypothetical protein
1369	AA098_26065	5797777	5798724	-	315	-	AraC family transcriptional regulator
1370	AA098_26085	5801815	5802285	+	156	-	4-hydroxybenzoyl-CoA thioesterase
1371	AA098_26090	5802554	5803582	+	342	-	transcriptional regulator

1372	AA098_26095	5803571	5805253	-	560	-	ricin B lectin
1373	AA098_26180	5821728	5821955	-	75	-	hypothetical protein
1374	AA098_26235	5830924	5832243	+	439	-	integrase
1375	AA098_26240	5832620	5832889	+	89	-	hypothetical protein
1376	AA098_26245	5833173	5834153	+	326	-	integrase
1377	AA098_26250	5834639	5835985	+	448	-	reverse transcriptase
1378	AA098_26255	5835978	5838026	+	682	-	reverse transcriptase
1379	AA098_26260	5838527	5840137	-	536	-	diguanylate cyclase
1380	AA098_26265	5840318	5840524	+	68	-	hypothetical protein
1381	AA098_26575	5910181	5911911	+	576	-	dipeptidase
1382	AA098_26615	5917076	5917663	-	195	-	membrane protein
1383	AA098_26625	5919624	5920103	+	159	-	hypothetical protein
1384	AA098_26630	5920155	5920733	+	192	-	hypothetical protein
1385	AA098_26690	5930895	5931197	+	100	-	hypothetical protein
1386	AA098_26900	6007029	6007346	+	105	-	holliday junction resolvase, helicase subunit
1387	AA098_26980	6024524	6024994	-	156	-	hypothetical protein
1388	AA098_27180	6064780	6066402	+	540	-	hypothetical protein
1389	AA098_27190	6069899	6070579	-	226	-	hypothetical protein
1390	AA098_27330	6095262	6095462	-	66	-	hypothetical protein
1391	AA098_27435	6117355	6117762	+	135	-	integral membrane-like protein
1392	AA098_27440	6118451	6118900	+	149	-	hypothetical protein
1393	AA098_27445	6120569	6121096	+	175	-	hypothetical protein
1394	AA098_27450	6121198	6121521	-	107	-	hypothetical protein
1395	AA098_27455	6121639	6122313	-	224	-	transcriptional regulator
1396	AA098_27480	6130541	6131569	+	342	-	transcriptional regulator
1397	AA098_27485	6131606	6131929	+	107	-	hypothetical protein
1398	AA098_27490	6132132	6134129	+	665	-	ATPase
1399	AA098_27495	6134222	6134446	-	74	-	hypothetical protein

1400	AA098_27500	6134574	6135599	-	341	-	hypothetical protein
1401	AA098_27505	6135898	6137205	-	435	-	porin
1402	AA098_27510	6137416	6138384	-	322	-	LysR family transcriptional regulator
1403	AA098_27515	6138642	6139061	+	139	-	sugar translocase
1404	AA098_27520	6139027	6140010	+	327	-	ribonuclease III
1405	AA098_27525	6140004	6141458	+	484	-	sugar transferase
1406	AA098_27535	6142029	6142616	+	195	-	hypothetical protein
1407	AA098_27555	6146625	6146951	+	108	-	hypothetical protein
1408	AA098_27560	6146984	6147334	-	116	-	hypothetical protein
1409	AA098_27570	6148550	6148756	-	68	-	hypothetical protein
1410	AA098_27580	6151373	6151579	-	68	-	hypothetical protein
1411	AA098_27585	6151594	6151803	-	69	-	hypothetical protein
1412	AA098_27590	6152024	6152947	-	307	-	hypothetical protein
1413	AA098_27595	6153258	6153506	-	82	-	hypothetical protein
1414	AA098_27600	6154130	6154801	-	223	-	hypothetical protein
1415	AA098_27605	6154810	6155652	-	280	-	hypothetical protein
1416	AA098_27610	6156298	6156657	-	119	-	transcriptional regulator
1417	AA098_27615	6156714	6158630	-	638	-	hypothetical protein
1418	AA098_27620	6158706	6159665	-	319	-	ATPase AAA
1419	AA098_27625	6159662	6161620	-	652	-	integrase
1420	AA098_27630	6161601	6162239	-	212	-	TnsA endonuclease